

Receiving Report

Date: 4/4/5
 Supplier: BLE

Batch No: 11/28798
 Dart P/O: 23608

Packing Slip: Yes ☒ No ☐
 Invoice: Yes ☐ No ☒
 Receipt: Cash ☐ Cr ☒
 New Supplier Yes ☐ No ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐
 Waybill Attached: Yes ☐ No ☒ N/A ☐
 Shipment Complete: Yes ☐ No ☒ N/A ☐
 QC18 Inspection ☐ N/A ☒
 Work Order ☐ N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Rec'd	Quantity Short	Quantity Inspected	Quantity Rejected	Comment / NCR Number
<u>V412</u>	<u>PO Re-Pur 3D</u>						

Initials of Receiver

QC12

Production/Admin:

Date

Received/Costing

Initial

Location



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO23658

Purchase Order Date 4/4/2014

PO Print Date 4/4/2014

Page Number 1 of 3

Order From :

VU-BEA001

Ship To : DART AEROSPACE LTD

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 305-925-2600

Buyer

Michael Gregoire

Customer POID

Customer Tax #

10127-2607

Ship To Contact

Terms

Net 30

Ship To Phone

Currency

USD

Ship Via:

FedEx PI collect

FOB

FCA - (Free Carrier)

Ship Acct:

1128798

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	MS17984-C413	Quick Release Pin	4/11/2014 Yes 4/11/2014	FN	50.00 Each	\$18.00	\$900.00
Line Total:							\$900.00
2	MS20600-AD4W4	Rivets	4/11/2014 Yes 4/11/2014		3,000.00 Each	\$0.14	\$420.00
Line Total:							\$420.00
3	MS21042L4	Locknut	4/11/2014 Yes 4/11/2014	FN	5,000.00 Each	\$0.14	\$700.00

Note:

4/4/2014



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO23658**

Purchase Order Date 4/4/2014

PO Print Date 4/4/2014

Page Number 2 of 3

Order From :

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

VU-BEA001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

305-925-2600

Ship To Contact

Ship To Phone

Ship Via:

FedEx PI collect

Ship Acct:

Buyer

Michael Gregoire

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

Line Total: \$700.00

4	MS21042L5	Nut	4/11/2014 FN	1,000.00	\$0.45	\$450.00
			Yes	Each		
			4/11/2014			

Line Total: \$450.00

5	MS21043-4	Nut	4/11/2014 FN	1,500.00	\$0.55	\$825.00
			Yes	Each		
			4/11/2014			

Line Total: \$825.00

6	MS21083C8	Nut	4/11/2014 FN	200.00	\$1.55	\$310.00
			Yes	Each		
			4/11/2014			

Line Total: \$310.00

Note:

4/4/2014



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO23658**

Purchase Order Date 4/4/2014

PO Print Date 4/4/2014

Page Number 3 of 3

Order From :

VU-BEA001

Ship To : DART AEROSPACE LTD

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 305-925-2600

Ship To Contact

Ship To Phone

Ship Via: FedEx PI collect

Ship Acct:

Buyer

Michael Gregoire

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

7	MS21250-03004	HIGH STEEL BOLT	4/11/2014	25.00		\$2.50	\$62.50
			Yes	Each			
			4/11/2014				

Line Total: \$62.50

8	71401-45		4/11/2014	0.00		\$0.00	\$0.00
			No				

Procurement Quality Clauses
A005 RIGHT OF ENTRY
A012 CHEMICAL AND PHYSICAL TEST REPORTS
A016 PERSONNEL QUALIFICATION
A026 CERTIFICATION OF MATERIAL CONFORMANCE
A032 PUBLIC LAW 101-592 FASTENER QUALITY ACT
A033 STATEMENT OF CONFORMITY/TEST RECORDS
FOR NAS, AN and MS FASTENERS
A040 NOTIFICATION OF QUALITY ESCAPE
A041 QUALITY MANAGEMENT SYSTEM
A042 DART NOTIFICATION BY SUPPLIER
A043 RETENTION OF QUALITY DOCUMENTS

Line Total: \$0.00

PO Total: \$3,667.50

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr:

1

Change Date: 4/4/2014



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.becconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23658

LIN#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
3	5000	EA	MS21042L4		45582-000	MACLEAN-BSNA	019L2		


Jason Lewis
Vice President of Quality

04/08/14

Date
2/27/14
11:19
Ship#: 064579

Sold BE AEROSPACE INC
To PO BOX 025263
MIAMI, FL 33102-5263

Ship B/E AEROSPACE
To 9835 NW 14TH ST
MIAMI, FL 33172

Order No.	Order date	Cust No.	Loc	Sls rep	P.O. No.	Job No.	Ship Via	Col Ppd
080310	7/08/13	552550	29	999			Not on file	COLLECT Collect
OPYW91								

Order qty	Qty ship	B/O qty	Item description	Number / Level	UM	Need Date	Summ Qty	Item Loc
305213	2194787	056054		MS21042L4	EA			29-Loc
305213			M52LF3324-4			(1/27/14)		

* CERTS REQUIRED *

Cert Type C1

* DFAR 252.225.7014 REQUIRED *

CERTIFY TO NAS1291-4
RELEASE NO. W5L90PYW91

A50A	DFAR	45582-000	274,115
M40B	14167	45668-000	31,098

***** ORDER COMMENTS *****
QTY TOLERANCE +/-2%
UNDER 150# FEDEX GROUND
0331-0149-0 MARK COLLECT
OVER 150# FEDEX NATIONAL LTL
018757
STANDARD FRT TERMS: EXW

*** Shipment Summary: 32 Cartons 1 Pallets 1,049.00 Weight

MACLEAN-ESNA
A MACLEAN-FOGG COMPANY
POCAHONTAS, ARKANSAS 72455

CERTIFICATE OF QUALITY COMPLIANCE

DATE: 2/28/2014

TO: B/E AEROSPACE
9835 NW 14TH ST
MIAMI, FL 33172

ESNA PART NO. M52LF3324-4
MANUFACTURER'S LOT SIZE 274115 (APPROX. WT. COUNT)
MANUFACTURED UNDER SHOP ORDER NUMBER 45582 - 000
ORIGINATED AS SHOP ORDER NUMBER -
CUSTOMER PO #: 0PYW91 PACKING LIST #: 64579
ESNA ORDER #: 080310 QTY PACKAGED: 274115
CUSTOMER PART #: MS21042L4 & NAS1291-4

ACCEPTANCE TESTS PER NASM25027 REV 1

MATERIAL RAW MATERIAL TYPE .281 4037 WIRE DATE MFG: 11/08/13
RAW MATERIAL CONFORMS TO AMS 6300E AS EVIDENCED BY THE ATTACHED MILL CERTIFICATION. ESNA SHOP
ORDER NO. 45582 - 000 MILL HEAT NO. 10208610 VENDOR WIRE TECH

FINISH FINISH TYPE CAD. PLATE TO SAE AMS QQ-P-416B, TY II, CL 2
LUBRICANT TYPE EVERLUB 620C DRY FILM LUBE PER AS5272 TYPE I

ACCEPTED 23HR STRESS EMBRITTLEMENT LOADED TO 129 IN. LBS. MIN

AXIAL STRENGTH REQUIRED LBS. MINIMUM 6470 ALL SAMPLE PIECES TESTED MEET OR EXCEED
EXCEEDS LBS. 6600 MINIMUM REQUIREMENTS.

SAMPLE SIZE 27 PIECES.

HARDNESS REQUIREMENT HRC 43-46 IS HRC 43-44

WORKMANSHIP CONFORMS DIMENSIONALLY TO MS21042L4 PER NASM21042 REV 1 & NAS1291-4 REV 13 STANDARD.
BEARING SURFACE SQUARENESS AS SPECIFIED PER NASM25027 REV 1

DISCONTINUITIES

WITHIN LIMITS PER NASM25027 REV 1 AND MIL-STD-271D/ACN 1/ AND REV E/ NOTICE 2/ AND REV F/ NOTICE 1.

ASTM-E1444/E1444M REV 12

MT PER SPEC 725 X

SAMPLE SIZE(MT - PCS): 32

ACCEPTED(PCS): 32

PT PER SPEC 731

SAMPLE SIZE(PT - PCS): 0

ACCEPTED(PCS): N/A

This is to certify that all applicable plating, heat treating, and inspection processing and that all material used in the manufacture of subject parts conform to the specification or drawings received by ESNA and set forth in the subject purchase order; that the parts are of good material and workmanship; and that all necessary records, including chemical and physical where applicable, will be made available for review upon request. The inspection and test reports provided represent the actual attributes of the items furnished on this contract and indicate full compliance with all applicable specification and contract requirements.

This is to certify that the materials supplied against the subject order are free of contamination by presence of mercury.

SIGNATURE

Mara Kildow
for TERESA MELTON, QUALITY ASSURANCE MANAGER
Mara Kildow, Quality Technician

MACLEAN-ESNA
A MACLEAN-FOGG COMPANY
POCAHONTAS, ARKANSAS 72455

LOCKING TORQUE TEST

CUSTOMER NAME B/E AEROSPACE
9835 NW 14TH ST
MIAMI, FL 33172

CUSTOMER DUE DATE

2/28/2014

CUSTOMER PO #	0PYW91	ESNA ORDER #	080310
ITEM NUMBER	056054	PART #	M52LF3324-4
QUANTITY	274115	SHOP ORDER #	45582 - 000
THREAD SIZE	.2500-28 UNJF-3B	LOT QUANTITY	274115
HEX	.306-.314	PARENT SHOP ORDER #	-
LINE NO	1		
MS NUMBER - REF:	MS21042L4 PER NASM21042 REV 1 & NAS1291-4 REV 13		

Sample Size & Requirements per Spec NASM25027 REV 1

SampleSz 27

REQUIREMENT: 1ST, 7TH, 15TH, INSTALLATION MAXIMUM TORQUE

30

15TH BREAKAWAY MINIMUM TORQUE

3.5

SAMPLE #	1ST ON	1ST BREAK	7TH ON	7TH BREAK	15TH ON	15TH BREAK
1	20	18	14	12	10	12
2	20	20	12	14	10	12
3	22	18	14	10	09	10
4	20	16	12	09	10	12
5	18	16	10	07	07	08
6	22	20	13	10	09	10
7	24	20	12	09	08	09
8	25	23	18	16	12	14
9	20	18	12	10	11	09
10	20	16	12	08	09	11
11	22	20	10	06	06	07
12	20	18	12	10	06	09
13	18	16	10	08	05	07
14	22	20	16	14	10	12
15	20	20	14	12	12	12
16	22	16	12	10	06	10
17	20	18	12	10	05	07
18	22	20	16	12	08	10
19	20	18	14	09	06	09
20	22	20	16	11	08	09
21	26	24	18	16	10	12
22	24	20	18	16	12	12
23	22	18	14	12	09	10
24	20	20	12	10	08	09
25	20	18	10	08	07	07
26	24	22	16	14	10	12
27	22	20	12	12	08	10

SIGNATURE

Mara Kildow
for TERESA MELTON, QUALITY ASSURANCE MANAGER
Mara Kildow, Quality Technician



WireTech, Inc.

6440 E. Canning Street
Los Angeles, CA 90040
Phone (323) 722-4933
Fax (323) 721-2738

SOLD TO

Maclean - ESNA
611 Country Club Road
Pocahontas, AR 72455
USA

MIR 28601
PO 25492
281 4037



WORK ORDER
101057

CERTIFICATION

HEAT NO.
10208610
SALES ORDER / RLS
850978 / 2
ISO 9001-2000 REGISTERED



MECHANICAL TESTING
CERT # 911.01

CERT# 911.01

CUSTOMER P.O. 25492-00	CUSTOMER PART 0420070281	QUANTITY 2,407 Lbs	CARRIERS 2	LADING NO 00106893	SHIPMENT DATE 11/08/2013			
SPECIFICATION M054037-102810A A-4037, AQ, 8KFG, CHQ WIRE, SEAM & DECARB FREE, SAIP Zinc Phosphate, Lime & Stearate Coating, Size:0.279/0.283 Specifications: AMS 6300 E, 1042C								
CERTIFICATION REQUIREMENTS								
Chemical Properties								
C .37	Si .230	Mn .77	P .008	S .01	Cu .09	Ni .04	Cr .16	Mo .21
Physical Properties								
Grain Size Jominy 1 6 J1=55		Jominy 2 J5=34	Inclusions Macro S2-R1-C2	Cleanliness F&S=0	Mill Source Charter			
Country of Origin USA - DFAR Compliant								
Mechanical Properties								
TEST	UNITS	Results						
Tensile Strength	KSI	73.6						
Yield Strength	KSI	62.6						
% Elongation	%	33.5						
% Reduction of Area	%	72.5						
Rockwell Hardness B Scale	HRB (s)	81						
Decarb (Total)	In	0.00						
4 5 5 8 2 - 0 0 0								
<small>Merchandise covered by this invoice is warranted to be free from defects in workmanship or material but not for any specific length of time, type or measure of service. No claim for allowance will be recognized unless presented in writing within 10 days time after receipt of material. Our maximum liability for any claim predicated upon defective merchandise is limited to replacement of it, or to repayment of it, or to repayment of the purchase price thereof, as we elect. Material not to specific length or size cannot be returned for credit and request for cancellation of such orders will not be considered if manufacture has been commenced. Buyer, by acceptance of the merchandise covered by this invoice, agrees to the foregoing terms and conditions and those set forth on the reverse hereof. "The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal statutes including Federal law, Title 18, Chapter 47."</small> REPRODUCTION OF THIS CERTIFICATION IS NOT ALLOWED UNLESS IN FULL. <small>Wire Tech, Inc. metallurgical laboratory is accredited in the following tests: chemical analysis per ASTM E 416, mechanical testing per ASTM A 370, Rockwell hardness per ASTM E 18, metallographic mount preparation per ASTM E 3, decarburization depth per ASTM E 107, IFI 140, inclusion rating per ASTM E 45, decarburization performed as per IFI 140. The reported Chemical and Physical Properties are Mill Source results. Transcribed from mill certificates. HRB(s) are hardness results performed with a 1/16" steel ball. Unless otherwise specified, HRB and HRC results are conversions from ASTM A370 tables 1 and 2. *Test result not covered by our current ASLA accreditation. Tests which have been undertaken by a subcontractor laboratory that is not accredited are not endorsed by ASLA or covered by Wire Tech, Inc. ASLA accreditation DFAR Material per Clauses 252.225-7014 ALT. 1, 252.225-7009, & 225.003(9)</small> TEST RESULTS RELATE ONLY TO THE ITEMS TESTED.								
Material is free of mercury, radium, or alpha contamination.								



CHARTER STEEL

A Division of
Charter Manufacturing Company, Inc.

EMAIL

1658 Cold Springs Road
Saukville, Wisconsin 53080

(262) 268-2400

1-800-437-8789

FAX (262) 268-2570

CHARTER STEEL TEST REPORT Reverse Has Text And Codes

Wiretech Incorporated
6440 East Canning Street
Attn: Andre Stephan
Los Angeles, CA-90040

Customer Part #	6889-9
Customer Order #	4037C1A090-C
Customer Sales Order #	70033608
Customer Lot #	10208610
Customer Sub Lot #	4170213
Customer Material #	4037 R SK FG AQ 23/64
Customer Material Size	HRSA
Customer Material Size	23/64

I hereby certify that the material described herein has been manufactured in accordance with the specifications and standards listed below and on the reverse side, and that it satisfies these requirements.

Test Results of Heat Lot# 10208610											
Lab Code: 7388	C	MN	P	S	SI	NI	CR	MO	CU	SN	V
CHEM %Wt	.37	.77	.008	.010	.230	.04	.16	.21	.09	.007	.002
	AL	N	B	TI	NB						
	.026	.0060	.0000	.002	.002						
JOMINY(HRC)	JOM01	JOM02	JOM03	JOM04	JOM05	JOM06	JOM07	JOM08	JOM09	JOM10	JOM12
	55	54	50	41	34	30	28	27	26	25	22
	JOM14	JOM16	JOM18								
	22	21	20								

JOMINY SAMPLE TYPE ENGLISH = C
MACRO ETCH SURFACE = 1 MACRO ETCH RANDOM = 1 MACRO ETCH CENTER = 1
AMS 2301 FREQUENCY AVERAGE = .00 AMS 2301 FREQUENCY INDIVIDUAL = .00
AMS 2301 SEVERITY AVERAGE = .00 AMS 2301 SEVERITY INDIVIDUAL = .00
CHEM. DEVIATION EXT. - GREEN = 238359

Test Results of Rolling Lot# 1074547				
REDUCTION RATIO = 299:1				
Test Results of Processing Lot# 4170195, 4170213				
	# of Tests	Min Value	Max Value	Mean Value
TENSILE	1.0	74.8	74.8	74.8
REDUCTION OF AREA	1	68	68	68
NUM DECARB = 1	FREE FERRITE DECARB = .000	FREE FERR & PARTIAL DECARB = .003		
CP SPHERO % LAB = 0358-02	NUM SPHERO = 1	SPHERODIZATION = 87.5		

Specifications: Manufactured per Charter Steel Quality Manual Rev 9,08-01-09
Meets customer specifications with any applicable Charter Steel exceptions for the following customer documents:
Customer Document = AMS 6300F / AMS 2301K / COP 3010M Revision = Dated =

Additional Comments:

2mm R 2800
Pc 25492
281 4037

45582-000

Charter Steel
Saukville, WI, USA



Page 1 of 1

This MTR supersedes all previously dated MTRs for this order

Janice Barnard
Manager of Quality Assurance
10/15/2012

Rem: Load1, Fax0, Mail0

The following statements are applicable to the material described on the front of this Test Report:

1. Except as noted, the steel supplied for this order was melted, rolled, and processed in the United States meeting DFAR's compliance.
2. Mercury was not used during the manufacture of this product, nor was the steel contaminated with mercury during processing.
3. Unless directed by the customer, there are no welds in any of the coils produced for this order.
4. The laboratory that generated the analytical or test results can be identified by the following key:

Certificate Number	Lab Code	Laboratory		Address
0358-01	7388	CSSM	Charter Steel Melting Division	1653 Cold Springs Road, Saukville, WI 53080
0358-02	8171	CSSR/CSSP	Charter Steel Rolling/Processing Division	1658 Cold Springs Road, Saukville, WI 53080
0358-03	123633	CSFP	Charter Steel Ohio Processing Division	6255 US Highway 23, Risingsun, OH 43457
0358-04	125544	CSCM/CSCR	Charter Steel Cleveland	4300 E. 49th St., Cuyahoga Heights, OH 44125-1004
.	.	--	Subcontracted test performed by laboratory not in Charter Steel system	

5. When run by a Charter Steel laboratory, the following tests were performed according to the latest revisions of the specifications listed below, as noted in the Charter Steel Laboratory Quality Manual:

Test	Specification	CSSM	CSSR/CSSP	CSFP	CSCM/CSCR
Chemistry Analysis	ASTM E415; ASTM E1019	X			X
Macroetch	ASTM E381	X			X
Hardenability (Jominy)	ASTM A255; SAE J406; JIS G058	X			X
Grain Size	ASTM E112	X	X	X	X
Tensile Test	ASTM E8; ASTM A370		X	X	X
Rockwell Hardness	ASTM E18; ASTM A370	X	X	X	X
Microstructure (spheroidization)	ASTM A892		X	X	
Inclusion Content (Methods A, E)	ASTM E45		X		X
Decarburization	ASTM E1077		X	X	X

Charter Steel has been accredited to perform all of the above tests by the American Association for Laboratory Accreditation (A2LA). These accreditations expire 01/31/13.

All other test results associated with a Charter Steel laboratory that appear on the front of this report, if any, were performed according to documented procedures developed by Charter Steel and are not accredited by A2LA.

6. The test results on the front of this report are the true values measured on the samples taken from the production lot. They do not apply to any other sample.
7. This test report cannot be reproduced or distributed except in full without the written permission of Charter Steel. The primary customer whose name and address appear on the front of this form may reproduce this test report subject to the following restrictions:
 - It may be distributed only to their customers
 - Both sides of all pages must be reproduced in full
8. This certification is given subject to the terms and conditions of sale provided in Charter Steel's acknowledgement (designated by our Sales Order number) to the customer's purchase order. Both order numbers appear on the front page of this Report.
9. Where the customer has provided a specification, the results on the front of this test report conform to that specification unless otherwise noted on this test report.

45582-000



2mir 28601
PO 25492
281 4037



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: P023658

LIN#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
6	200	EA	MS21083C8		39223-000	MACLEAN-ESNA	019L2		


Jason Lewis
Vice President of Quality

04/08/14

Run Date: 8/16/08 Time: 8:53 AM

User: DLB Page 000001

MACLEAN ESNA
PICKING / PACKING LIST

46527

Ship From: MacLean ESNA
611 Country Club Road
Pocahontas, AR 72455Col/Ppd: 01 COLLECT
Routing: 01 Not on fileSold to: 552550
M&M AEROSPACE HARDWARE
PO BOX 025263
MIAMI, FL 33102-5263Ship To: 552550-0000
M&M AEROSPACE HARDWARE
10000 N.W. 15 TERRACE
MIAMI, FL 33172

Customer P.O.: DFL390

Order No: 052910-00 B/O# 00
Tkn By: SEH Chgd By:

Ord. Qty.	Item Number	LOCN	Qty.	No. of	Net
No. Ctns	Description	TAG	Picked	Cartons	Weigh
Ship Qty.		HT/LOT			
50000	180846	0005 08/25/08	50000	50000	28 102
28	79NTE-080	DFAR			
50000	MS21083C8	39223-000			
CTN QTY: 1800 Cus Ft: MS21083C8					

 * CERTS REQUIRED *

 * DFAR 252.225.7014 REQUIRED *

1561d
28874 9807

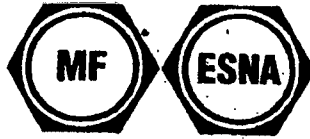
Order Total:

~~28 102~~

***** ORDER COMMENTS *****

QTY TOLERANCE +/-2%
 UP TO 200# UPS 363159
 SHIP VIA WATKINS 018757 OR FED
 EX FRT EAST TRUCKING 17190095
 DO NOT INSURE
 F.O.B. POCAHONTAS, AR
 ALL ITEMS MUST BE NEW AND TO LATEST
 REVISION

1 @ 1400
27 @ 1800
8/16/08



MACLEAN-ESNA

MANUFACTURER'S AFFIDAVIT

I, Cliff Hufstedler hereby certify that the below named parts
(Name)

were manufactured by MacLean-ESNA located at
(Company Name)

611 Country Club Rd. Pocahontas, AR 72455
(Street Address) (City) (State) (Zip Code)

Part No.	Part Description
<u>180846 79NTE-080</u> <u>Cust PN MS21083CB</u>	<u>Steel Nuts</u>

I further certify that should any change in the manufacturing process occur which changes the country of origin, I will immediately notify M&M Aerospace Hardware, Inc. in writing and provide a new Manufacturer's Affidavit.

Cliff Hufstedler
(Signature)

Plant Manager
(Title)

8/19/08
(Date)

MACLEAN-ESNA
A MACLEAN-FOGG COMPANY
611 COUNTRY CLUB ROAD
POCAHONTAS, ARKANSAS 72455
(870) 892-5201

TO: M&M AEROSPACE HARDWARE
10000 N.W. 15 TERRACE
MIAMI, FL 33172

DATE: 8/19/2008

SUBJECT:	YOUR ORDER NUMBER	OFL390	ITEM NUMBER	1
	ESNA ORDER NUMBER	052910		
	FSCM/ CAGE NUMBER	019L2		
	YOUR PART NUMBER	MS21083C8		
	CERTIFIED AS	MS21083C8 PER NASM21083 REV 1		
	ESNA PART NUMBER	79NTE-080		
	QUANTITY	50000		
	PACKING LIST NUMBER	46527		
	SHOP ORDER NUMBER	39223 - 000		

Gentlemen:

This is to certify that all applicable plating, heat treating, and inspection processing and that all material used in the manufacture of subject parts conform to the specification or drawings received by ESNA and set forth in the subject purchase order; that the parts are of good material and workmanship; and that all necessary records, including chemical and physical where applicable, will be made available for review upon request. The inspection and test reports provided represent the actual attributes of the items furnished on this contract and indicate full compliance with all applicable specification and contract requirements.

This is to certify that the materials supplied against the subject order are free of contamination by presence of mercury.

Very truly yours,

MACLEAN-ESNA
A MACLEAN-FOGG COMPANY

Mara Kildow

for Jim Earley
Quality Assurance Manager

NOTE: The magnetic permeability of subject parts was tested and found to be less than 2.0 (air = 1.0) for a field strength of H = 200 oersteds using an indicator in accordance with ASTM A342.

MACLEAN-ESNA
A MACLEAN-FOGG COMPANY
POCAHONTAS, ARKANSAS 72455

CERTIFICATE OF QUALITY COMPLIANCE

DATE: 8/19/2008

TO: M&M AEROSPACE HARDWARE
10000 N.W. 15 TERRACE
MIAMI, FL 33172

ESNA PART NO. 79NTE-080
MANUFACTURER'S LOT SIZE 55929 (APPROX. WT. COUNT)
MANUFACTURED UNDER SHOP ORDER NUMBER 39223 - 000
ORIGINATED AS SHOP ORDER NUMBER

ACCEPTANCE TESTS PER NASM 25027

MATERIAL RAW MATERIAL TYPE .750 HEX 303 SS BAR DATE MFG: 07-08
RAW MATERIAL CONFORMS TO AMS 5640 TYPE 1 AS EVIDENCED BY THE ATTACHED MILL CERTIFICATION. ESNA SHOP
ORDER NO. 39223 - 000 MILL HEAT NO. 736973 VENDOR CARPENTER TECHNOLOGY
RED NYLON IS A TRADEMARK OF ELASTIC STOP NUT. THIS ASSURES TRACEABILITY OF PARTS TO SOURCE. MATERIAL
CERTIFICATION WITH HEAT NUMBERS ASSURES TRACEABILITY TO VENDOR OF RAW MATERIAL. NONMETALLIC INSERT
CONFORMS TO ASTM D4066-00. (ZYTEL 103)

FINISH FINISH TYPE PASSIVATED PER QQ-P-35C
LUBRICANT TYPE WAX LUBRICANT

AXIAL STRENGTH REQUIRED LBS. MINIMUM 7,400 ALL SAMPLE PIECES TESTED MEET OR EXCEED
EXCEEDS LBS. 8,000 MINIMUM REQUIREMENTS.
SAMPLE SIZE 15 PIECES.

WORKMANSHIP CONFORMS DIMENSIONALLY TO MS21083C8 PER NASM21083 REV 1
STANDARD: BEARING SURFACE SQUARENESS AS SPECIFIED PER NASM 25027

DISCONTINUITIES

WITHIN LIMITS PER NASM 25027 AND MIL-STD-271D/ACN 1/ AND REV E/ NOTICE 2/ AND REV F/ NOTICE 1.

MT PER SPEC 725	SAMPLE SIZE(MT - PCS):	0
	ACCEPTED(PCS):	N/A
PT PER SPEC 731 AA	SAMPLE SIZE(PT - PCS):	32
	ACCEPTED(PCS):	32

LOCKING TORQUE MAXIMUM LOCKING(IN. LBS.): 150
MINIMUM BREAKAWAY(IN. LBS.): 18
1ST CYCLE MAXIMUM LOCKING(IN. LBS.): 50
7TH CYCLE MAXIMUM LOCKING(IN. LBS.): 50
15TH CYCLE MAXIMUM LOCKING(IN. LBS.): 48
15TH MINIMUM BREAKAWAY(IN. LBS.): 38
ALL SAMPLE PIECES MEET
OR EXCEED MINIMUM REQTS.
SAMPLE SIZE 15 PIECES

MERCURY FREE CLAUSE

WE CERTIFY THAT NO POSSIBILITY EXISTS FOR MERCURY CONTAMINATION TO OCCUR
DURING MANUFACTURE, ASSEMBLY, OR TESTING OF PARTS ON THIS CONTRACT.

I CERTIFY THAT THE ABOVE TEST RESULTS AND/OR STATEMENTS ARE CORRECT AND REPRESENT THE PRODUCTS AS SUPPLIED.

FSCM/CAGE NO. 019L2
COQC-NASM REV. 6-18-01

SIGNATURE *Mara K. Earley*
for JIM EARLEY, QUALITY ASSURANCE MANAGER

MACLEAN-ESNA
A MACLEAN-FOGG COMPANY
POCAHONTAS, ARKANSAS 72455

LOCKING TORQUE TEST

CUSTOMER NAME M&M AEROSPACE HARDWARE
10000 N.W. 15 TERRACE
MIAMI, FL 33172

CUSTOMER DUE DATE

8/19/2008

CUSTOMER PO # OFL390
ITEM NUMBER 180846
QUANTITY 50000
THREAD SIZE .500 -20UNJF-3B
HEX .741 - .752
LINE NO 1
MS NUMBER - REF: MS21083C8 PER NASM21083 REV 1

ESNA ORDER # 052910
PART # 79NTE-080
SHOP ORDER # 39223 - 000
LOT QUANTITY 55929
PARENT SHOP ORDER # -

Sample Size & Requirements per Spec NASM25027

SampleSz 15

REQUIREMENT: 1ST, 7TH, 15TH, INSTALLATION MAXIMUM TORQUE 150
15TH BREAKAWAY MINIMUM TORQUE 18

SAMPLE #	1ST ON	1ST BREAK	7TH ON	7TH BREAK	15TH ON	15TH BREAK
1	42	52	40	44	34	40
2	40	50	39	42	32	38
3	37	42	32	40	32	40
4	42	50	40	42	40	43
5	40	45	38	40	37	40
6	45	48	42	44	40	42
7	50	55	39	42	38	40
8	50	60	42	48	40	44
9	42	50	40	48	40	42
10	38	40	42	48	40	42
11	40	45	38	42	36	40
12	45	50	42	48	40	45
13	40	45	50	55	47	49
14	50	60	50	54	48	50
15	42	48	40	46	40	42

SIGNATURE

Mara Kildow
for JIM EARLEY, QUALITY ASSURANCE MANAGER

CERTIFICATE OF TESTS
CERT SERIAL# 000644070

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE



CARPENTER

Carpenter Technology Corporation
101 West Bern Street, Reading, Pa. 19601
Tel: (610) 208-2000 (800) 338-4592

- THE RECORDING OF FALSE, FICTICIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

07/02/08

CUSTOMER / BESTELLER / CLIENT

SELLER / VERKÄUFER / VENDEUR PAGE 1 OF 1

MACLEAN - ESNA
611 COUNTRY CLUB RD
POCAHONTAS, AR 72455

CARPENTER TECHNOLOGY CORP

101 W. BERN STREET
READING, PA 19601

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
17162 39223-000	CHI175901 L11939	07/02/08	3992.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 736973

PRODUCT DESCRIPTION: PROJECT 70+ TYPE 303 STAINLESS ANNEALED COLD DRAWN

SPECIFICATION: AMS 5640 REV U (10/ /07) (TYPE 1)
ASTM-A582-05

SIZE 0.750000 IN. (19.05 MM) HEX BAR

PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM) 0.02	MN(XRF) 1.72	SI(XRF) 0.38	P(XRF) 0.02	S (COM) 0.38	CR(XRF) 17.34
NI(XRF) 9.65	MO(XRF) 0.54	CU(XRF) 0.92			

MATERIAL PRODUCED ON THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A.

THIS MATERIAL WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS OPERATIONS QUALITY PROGRAM MANUAL REVISION 27, DATED 1/08.

NO WELD REPAIR.

SOLUTION ANNEALED TO PROVIDE A MICROSTRUCTURE FREE FROM CONTINUOUS GRAIN BOUNDARY CARBIDE PRECIPITATION (NETWORK).

MAX PERMEABILITY - 1.20

HARDNESS AS SHIPPED, HBW - 226 (MIDRADIUS)

YIELD STRENGTH, (0.20 %) KSI(MPA)	77.0(531)
TENSILE STRENGTH, KSI(MPA)	98.0(676)
ELONGATION IN 2.00", %	32.0
REDUCTION OF AREA, %	54.0

MATERIAL PRODUCED ON THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A. MATERIAL HAS BEEN MELTED IN USA OR QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1. CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF SEPTEMBER 2, 2004 TO THE REQUIREMENTS OF ISO 9001:2000 APPROVAL CERTIFICATE 07-0869 BY PERFORMANCE REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH 3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS.

MICHELE L. HEFFNER
MET RELEASE/REQUIREMENTS ANALYST
CARPENTER TECHNOLOGY CORPORATION

Michele L. Heffner

1080010750

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.
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B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7184
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23658

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
4	1500	EA	MS21043-4		M021722-000	ALCOA KAYNAR FULLERT	15653		


Jason Lewis
Vice President of Quality

04/08/14

Inv # 04/08/14

Alcoa Fastening Systems



Packing Slip



Packing Slip: 9948067565

Page: 1

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B/E AEROSPACE, INC.
P.O.BOX 025263
MIAMI FL 33102-5263
USA

Ship To: (14)
B/E AEROSPACE CONSUM MGMT
9835 NW 14TH ST
MIAMI FL 33172
USA

From:
ALCOA FASTENING SYSTEMS
AEROSPACE PRODUCTS
FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

Notice to Subsequent Purchaser or Repacker.
These articles are imported. The requirements of 19 U.S.C. 1304 & CFR part 134 provide that the articles or their containers must be marked in a conspicuous place as legibly, indelibly & permanently as the nature of the article or container will permit, in such a manner as to indicate to an ultimate purchaser in the United States, the English name of the country of origin of the article.

Order Contact:

Pack	Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
07/30/13	F440571	OKAP64				

Line/Rel	Item	/M	Qty Order	Qty T	Pack
4-1	AAT880 H41-4		50 000	5	275

C/I: MS21043-4 *Rev.3* Date: 07/10/13
PO Item #: 4 Date: 06/26/13
*** TSO C-148 APPVD PART. TSO LABEL RECD ***

Lot: M021722-000 COO:MEXICO
Waybill: _____ ECCN:9A991 Schedule-B Number:7318.16.0000
HTS-Code:7318.16.0060

The export classification appears above. You are responsible for all related export license requirements.

DUAL CERTIFIED TO: 2637654, NAS1291A4, N
AS1291C4
MFG C OF C CHEM & PHYS TEST REPORT REQ
CHARGES ON LINE # 5 INVOICE WITH LINE
4

ALCOA GLOBAL FASTENERS, INC.

Kaynar Products: Cage Code 15853 Eagle Products: Cage Code 66776 Rosan Products: Cage code 66776

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

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9835 NW 14TH ST
MIAMI FL 33172
USA

From:
ALCOA FASTENING SYSTEMS
AEROSPACE PRODUCTS
FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
07/30/13	F440571	OKAP64			

Line/Rel	Item	/M	ty	Order	Qty	Pack
----------	------	----	----	-------	-----	------

SHIP VIA : FEDX EX GRD
BUYER: ROHAN JOHNSON PHONE:
MATERIAL COMPLIES WITH DFARS 252.225-700
9 PREFERENCE FOR DOMESTIC SPECIALLY
METALS" WITH ITS ALTERNATE 1.
***SHIP VIA FEDX GRD COLLECT ACCT# 0183
0149-0 IF 150 LBS OR MORE:SHIP
EX FREIGHT ECONOMY COLLECT ACCT# 018757.

DO NOT SHIP BY ANY OTHER WITHOUT PROPER
WRITTEN AUTHORIZATION.

ALLOWABLE SHIPPING TOLERANCE = +0%-0 %.
** BAR CODE PER QAP 33 CLAUSE P REQUIRED

** QAP 33.0 REV F CLAUSES: A,A.1,B,C,E,H
,P,U,V. CLAUSE A.3 GENERAL TERMS
APPLIES.
chem & phys certs

ALCOA GLOBAL FASTENERS, INC.

Keynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776

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• • • • •

[illegible]

Figure 1

Figure 1



Alcoa Fastening Systems



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9835 NW 14TH ST
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FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

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legibly, indelibly & permanently as the nature of the article or
container will permit, in such a manner as to indicate to an
ultimate purchaser in the United States, the English name of
the country of origin of the article.

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
07/30/13	F440571	OKAP64			

Line/Rel

Item

Order d to pack

4-1

AL7880
H41

350

93 27

C/I: MS21043-4
PO Item #: 4

Cust Date: 07/10/13
Kay Date: 06/26/13

*** TSO C-148 APPVD PART. TSO LABEL REQ'D ***

Lot: M021722-000 COO:MEXICO

Waybill: ECCN:9A991 Schedule-B Number:7318.16.0000

HTS-Code:7318.16.0060

The export classification appears above. You are
responsible for all related export license
requirements.

DUAL CERTIFIED TO: 2637654, NAS1291A4, N
AS1291C4
MFG C OF C CHEM & PHYS TEST REPORT REQ
CHARGES ON LINE # 5 INVOICE WITH LINE
4

CERTIFICATE OF CONFORMANCE

This is to certify that all items noted above were produced in conformance with
the contract, drawing specifications, and other applicable documents. All
required process certifications, chemicals and physical test reports are on file
subject to examination. This document must not be reproduced except in
full and relates only to the items tested.

MICHELE M. VARELA
Quality Manager
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

Kaynar Products: Cage Code 15653 • Eagle Products: Cage Code 86776 • Rosan Products: Cage code 66776

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH
TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST
ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE
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HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF
FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

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Alcoa Fastening Systems



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Page: 2

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USA

Ship To: (14)
B/E AEROSPACE CONSUM MGMT
9835 NW 14TH ST
MIAMI FL 33172
USA

From:
ALCOA FASTENING SYSTEMS
AEROSPACE PRODUCTS
FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
07/30/13	F440571	OKAP64			

Line/Rel Item Description Order d... to ac

CERTIFICATION

SHIP VIA FED EX GRD
BUYER: ROHAN JOHNSON PHONE:

MATERIAL COMPLIES WITH DFARS 252.225-700
9 PREFERENCE FOR DOMESTIC SPECIALTY
METALS" WITH ITS ALTERNATE 1.

***SHIP VIA FEDX GRD COLLECT ACCT# 0331-
0149-0 IF 150 LBS OR MORE:SHIP FED
EX FREIGHT ECONOMY COLLECT ACCT# 018757.

DO NOT SHIP BY ANY OTHER WITHOUT PROPER
WRITTEN AUTHORIZATION.

ALLOWABLE SHIPPING TOLERANCE = +0%-0 %.

** BAR CODE PER QAP 33 CLAUSE P REQUIRED

** QAP 33.0 REV F CLAUSES: A,A.1,B,C,E,H
,P,U,V. CLAUSE A.3 GENERAL TERMS

APPLIES.

chem & phys certs

CERTIFICATE OF CONFORMANCE

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MICHELE M. VARELA
Quality Manager
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

Kaynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776

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Alcoa Fastening Systems Aerospace Products Fullerton Operations 800 S.STATE COLLEGE BLVD FULLERTON, CA 92831		<h1 style="margin: 0;">TEST REPORT</h1>		NO. <div style="font-size: 1.2em; font-weight: bold;">8189047</div>		Page 1 of 3		
Lot No. <div style="font-size: 1.2em; font-weight: bold;">M021722-000</div>								
Supplier Item No. AAT880		Supplier Part No. H41-4						
Interchange Part No. 2637654 Rev. B		Interchange Part No. 525-595-9006 Rev. N		Interchange Part No. H41-4				
Interchange Part No. MS21043-4 Rev. 3		Interchange Part No. N8862175/F Rev. 5a		Interchange Part No. NAS1291A4 Rev. 13				
Interchange Part No. NAS1291C4 Rev. 13		Interchange Part No.		Interchange Part No.				
Manufactured Quantity 93275	Mfg. Date 03/15/13	Generic Description 6 POINT NUT			Thread Size .2500-28			
PLATE/COAT AMS 2410 REV. K		HEAT TREAT AMS-H-6875 REV. B						
Non-Destruct ASTM E1417 REV. 11 E1 SAMPLE		PERFORMANCE NASM25027 REV. 1						
Material Spec. # AMS 5731-L	Mill Heat No. 970180	Control Heat No. AA18460F		Material Supplier CARPENTER TECHNOLOGY CORP				
Special Process Requirements: THREADS AND GAUGING PER AS8879 Rev.DR12 and ASME B1.3M SYS. 22 MIN EQUALS BKWY MAX EQUALS INST. *Conforms to AMS5732J after HT Treat MAGNETIC PERMEABILITY LESS THAN 2.0								
TEST RESULTS								
TEST	JOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/Fail	MINIMUM Requirement	MAXIMUM Requirement
1 - 010 TORQUE TEST MIN. 3.50 & MAX 30.0 IN LBS (CYC	IN# (,7,15)	1	1	12.80	12.85		3.50	30.00
			7	8.40	9.00			
			15	8.35	8.95			
		2	1	10.70	11.90			
			7	10.50	11.20			
			15	7.65	7.70			
		3	1	14.90	15.55			
			7	11.35	11.15			
			15	9.30	10.10			
		4	1	14.35	15.40			
			7	15.25	13.10			
			15	10.25	10.80			
		5	1	18.85	18.40			
			7	12.15	11.45			
			15	9.70	11.00			
6	1	13.40	14.85					
	7	8.95	9.25					
	15	8.70	9.10					
7	1	14.10	16.15					
TEST RESULTS - Continued on next page.								
THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL AND RELATES ONLY TO THE ITEMS TESTED								
The product identified on this Certificate has been manufactured, tested and unless otherwise noted, conforms in all respects to the applicable drawings, specifications and standards. Complete reports of physical and chemical tests are on file for examination. If no specified customer quality level is required, goods conform to sellers quality level. All Damages Exceeding Price are Excluded. For items certified to BPS-N-70 alloy verification has been performed on parts with a date of manufacturing on or after January 1, 2001. Quality system sampling plan conforms to the requirement of QAP EQ001, QAP EQ002, QAP EQ003. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.						 MICHELE M. VARELA, QA MGR.		

ALCOA GLOBAL FASTENERS, INC.

SHIPPER#: 9948067565

Rev. 12/02 Form 11190

**Alcoa
Fastening
Systems**

Aerospace Products
Fullerton Operations
800 S.STATE COLLEGE BLVD
FULLERTON, CA 92831

TEST REPORT

NO.

8189047

Page 2 of 3

Lot No.

M021722-000

Supplier Item No.

AAT880

Supplier Part No.

H41-4

TEST RESULTS - Continued from previous page.

----- TEST ----- No. Description	UOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
2 - 020 TENSILE TEST BOLT & NUT THD. STRIPPED	LBS	8	7	10.15	11.95		4580.00	
			15	9.25	10.50			
			1	14.05	13.10			
		9	7	9.90	10.45			
			15	9.00	10.15			
			1	20.50	20.10			
		10	7	13.85	14.00			
			15	11.40	12.95			
			1	13.00	13.45			
		11	7	11.85	11.40			
			15	11.50	11.55			
			1	9.55	10.20			
		12	7	14.15	15.05			
			15	10.80	11.95			
			1	16.15	17.45			
		13	7	14.25	15.40			
			15	12.10	13.50			
			1	13.75	16.30			
		14	7	12.70	13.10			
			15	11.45	11.35			
			1	27.10	19.20			
		15	7	16.25	15.70			
			15	11.80	14.10			
			1	13.10	12.85			
		1	7	10.20	10.60			
			15	11.80	10.00			
			1	7390.00				
		2	1	4850.00				
		3	1	4850.00				
		4	1	4850.00				
		5	1	4850.00				
		6	1	4850.00				
		7	1	4850.00				
		8	1	4850.00				
		9	1	4850.00				
		10	1	4850.00				
		11	1	4850.00				
		12	1	4850.00				
		13	1	4850.00				
		14	1	4850.00				

TEST RESULTS - Continued on next page.
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MICHELE M. VARELA, QA MGR.

ALCOA GLOBAL FASTENERS, INC.

Rev. 12/02 Form 11109

SHIPPER#: 9948067565

**Alcoa
Fastening
Systems**

 Aerospace Products
Fullerton Operations
800 S.STATE COLLEGE BLVD
FULLERTON, CA 92831

TEST REPORT

NO.

8189047

Page 3 of 3

Lot No.

M021722-000

Supplier Item No.

AAT880

Supplier Part No.

H41-4

TEST RESULTS - Continued from previous page.

----- TEST ----- No. Description	JOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
3 - 110 HARDNESS	RC	15	1	4850.00				
HRC 38-44		1	1	42.00	44.00			
7 - 113 Hardness (HR15N)	-	1	1	(81.50)	(82.50)			

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MICHELE M. VARELA, QA MGR.

ALCOA GLOBAL FASTENERS, INC.

Rev. 12/02 Form 11169

SHIPPER#: 9948067565

CERTIFICATE OF TESTS

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE

CERT SERIAL# 000863674

**CARPENTER**Carpenter Technology Corporation
101 West Bern Street, Reading, Pa. 19601
Tel: (610) 208-2000 (800) 338-4592

02/28/13

CUSTOMER / BESTELLER / CLIENT

ALCOA FASTENING SYSTEMS
FULLERTON OPERATION
P O BOX 3001
FULLERTON, CA 92631

CARPENTER TECHNOLOGY CORP

101 W. BERN STREET
READING, PA 19601

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

SELLER / VERKÄUFER / VENDEUR PAGE 1 OF 3

CUSTOMER ORDER NO. / BESTELL-NR. / N° DE COMMANDE	CARPENTER NO. / WERKS-NR. / N° DE REFERENCE INTERNE	DATE / DATUM / DATE	WEIGHT / GEWICHT / POIDS
220652079	LOS140701 L38250	02/28/13	2008.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 970180

AA18460F

PRODUCT DESCRIPTION: CONSUMET A286 SOLUTION ANNEALED COLD FINISH SEAM FREE C
HDG CL H2 STD CU/LM SOAP
PART NUMBER: 732104SPECIFICATION: FAIRCHILD MS 309 CLASS A REV 16 (09/15/10)
AMS 5731 REAFFIRMED HEADING STOCK REV L (07/ /12)
AMS 5732 REAFFIRMED REV J (07/ /12) (CAPABLE OF)
FAIRCHILD MS 550 REV 2 (12/10/02)

SIZE 0.342000 IN. (8.69 MM) RD WIRE

PRIMARY HEAT CHEMISTRY (WT%):

C 0.04 ✓	MN 0.31 ✓	SI 0.07 ✓	P 0.014 ✓	LT 0.001 ✓	CR 14.12 ✓
NI 24.81 ✓	MO 1.26 ✓	CU 0.14 ✓	CO 0.05 ✓	AL 0.18 ✓	TI 2.15 ✓
V 0.26 ✓	B 0.0072 ✓				

THE CHEMICAL ANALYSIS OF THIS HEAT HAS BEEN PERFORMED BY THE CARPENTER SPECIALTY ALLOYS CHEMICAL LABORATORY, (CODE NUMBER PRI 100004), WHICH WAS ACCREDITED TO THE ISO/IEC 17025.

COUNTRY OF ORIGIN: U.S.A.

THIS MATERIAL HAS BEEN SAMPLED, TESTED, AND INSPECTED IN ACCORDANCE WITH THE SPECIFICATION AND MEETS ALL SPECIFICATION REQUIREMENTS.

THIS MATERIAL WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS OPERATIONS QUALITY PROGRAM MANUAL REVISION 30, DATED 09/28/11.

THIS MATERIAL WAS MANUFACTURED FREE FROM MERCURY, RADIUM AND ALPHA SOURCE CONTAMINATION.

MILL HEAT TREATMENT:

TYPE	SOLUTION ANNEAL
TEMP	1800F (982C)
TIME AT TEMP	CONTINUOUS FURNACE
QUENCH	WATER

3-S-13 K424

CONTINUED ON NEXT PAGE

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die angegebenen Daten oder Zertifizierungen.
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SHIPPER#: 9948067565

CERTIFICATE OF TESTS

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE

CERT SERIAL# 000863674

**CARPENTER**

Carpenter Technology Corporation
101 West Bern Street, Reading, Pa. 19601
Tel: (610) 208-2000 (800) 338-4592

02/28/13

CUSTOMER/BESTELLER/CLIENT

ALCOA FASTENING SYSTEMS
FULLERTON OPERATION
P O BOX 3001
FULLERTON, CA 92631

CARPENTER TECHNOLOGY CORP

101 W. BERN STREET
READING, PA 19601

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SELLER/VERKÄUFER/VENDEUR PAGE 2 OF 3

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
220652079	LOS140701 L38250	02/28/13	2008.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 970180

HARDNESS AS SHIPPED, HRBW - 87 (MIDRADIUS)

TENSILE AS SHIPPED, KSI (MPA) 92.5 (638)

GRAIN SIZE PER ASTM E112: 7 (KALLINGS)

CAPABILITY

1800 F (982 C), 01 HR WATER TREAT
1325 F (718 C), 16 HR AIR COOL

***TESTED AT WESTMORELAND MECHANICAL TESTING & RESEARCH, INC.

COMBINATION STRESS RUPTURE
TEST TEMP 1200 F (649 C)
STRESS, KSI (MPA) 70.0 (483)
ELONGATION % 11.4
HOURS 78.3

AFTER MINIMUM TIME UNDER SPECIFIED STRESS, THE STRESS RUPTURE TEST
WAS OVERLOADED IN INCREMENTS AS FOLLOWS:

TOTAL HOURS	STRESS KSI (MPA)
48	75.0 (517)
56	80.0 (552)
64	85.0 (586)
72	90.0 (621)

***TESTED AT LATROBE SPECIALTY STEEL CO.

(T) RANSVERSE (L) ONGITUDINAL
YIELD STRENGTH, (0.20 %) KSI (MPA) 102.0 (703)
TENSILE STRENGTH, KSI (MPA) 150.0 (1034)
ELONGATION IN 1.00", % 27.0
REDUCTION OF AREA, % 45.0
HARDNESS, HRC 31.0

CONTINUED ON NEXT PAGE

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SHIPPER#: 9948067565

CERTIFICATE OF TESTS

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE

CERT SERIAL# 000863674

**CARPENTER**

Carpenter Technology Corporation
101 West Bern Street, Reading, Pa. 19601
Tel: (610) 208-2000 (800) 338-4592

02/28/13

CUSTOMER/BESTELLER/CLIENT

ALCOA FASTENING SYSTEMS
FULLERTON OPERATION
P O BOX 3001
FULLERTON, CA 92631

CARPENTER TECHNOLOGY CORP

101 W. BERN STREET
READING, PA 19601

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SELLER/VERKÄUFER/VENDEURPAGE 3 OF 3

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
220652079	LOS140701 L38250	02/28/13	2008.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 970180

CAPABILITY

1650 F (899 C), 02 HR
1325 F (718 C), 16 HR

WATER TREAT
AIR COOL

***TESTED AT WESTMORELAND MECHANICAL TESTING & RESEARCH, INC.

COMBINATION STRESS RUPTURE
TEST TEMP 1200 F (649 C)
STRESS, KSI(MPA) 65.0 (448)
ELONGATION % 34.3
HOURS 79.4

AFTER MINIMUM TIME UNDER SPECIFIED STRESS, THE STRESS RUPTURE TEST WAS OVERLOADED IN INCREMENTS AS FOLLOWS:

TOTAL HOURS	STRESS KSI(MPA)
48	70.0 (483)
56	75.0 (517)
64	80.0 (552)
72	85.0 (586)

(T) RANSVERSE (L) ONGITUDINAL	T
YIELD STRENGTH, (0.20 %) KSI(MPA)	119.0 (820)
TENSILE STRENGTH, KSI(MPA)	150.0 (1034)
ELONGATION IN 1.00", %	22.0
REDUCTION OF AREA, %	41.0
HARDNESS, HRC	31.0

MATERIAL HAS BEEN MELTED IN USA OR QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1, SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009. THIS ORDER WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS OPERATIONS QUALITY PROGRAM MANUAL, REVISION 30 DATED 09/28/11.

CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF NOVEMBER 24, 2010 TO THE REQUIREMENTS OF ISO 9001:2008 APPROVAL CERTIFICATE 10-1385R BY PERFORMANCE REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH 3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS, AS DOCUMENTED IN THIS CERTIFICATE OF TESTS.

TEST METHODS ARE PER THE ASTM STANDARDS ON FILE AND IN EFFECT AT TIME OF ORDER ACCEPTANCE, STANDARD PRACTICES, OR AS AGREED UPON BETWEEN CARPENTER & CUSTOMER.

SHERRY L KREIDER
ADMINISTRATOR - QUALITY
CARPENTER TECHNOLOGY CORPORATION

GFV*732104

Sherry Kreider

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SHIPPER#: 9948067565



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23658

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
7	25	EA	MS21250-03004		206648	3V FASTENERS	1ER65		


Jason Lewis
Vice President of Quality

04/08/14

3-V Fastener Co., Inc.
320 Reed Circle
Corona, CA 92879
Tel: 951-734-4391
Fax: 951-734-0127
www.3VFasteners.com

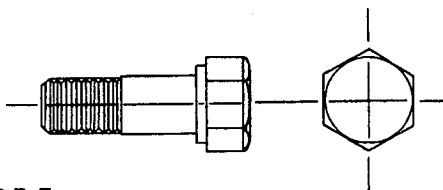
SHIPPED TO:
B/E AEROSPACE
9835 NW 14TH STREET
MIAMI FL 33172

CUSTOMER	OUR ORDER NO.	PICK SLIP NO.	YOUR ORDER NO.	DATE PRINTED
141327	109325	1661697	8M5450	04/12/2013

[illegible]

**3V™ FASTENERS**

PRECISION AEROSPACE FASTENERS

a **PEM®** Company320 Reed Circle • Corona, CA 92879
Tel: 951-734-4391 • FAX: 951-734-9488**TEST CERTIFICATION**

Cert # : 58591 Cert Date: 04/12/13 LOT #: 206648 Page: 1
MFG DATE: 10/16/12
Cust # : 141327 P.O. #: 8M5450
Customer : B/E AEROSPACE P.O. Qty: 17800
Ship To : MIAMI, FL. Ship #: 1661967
Ship Qty: 17300
Part #: MS21250-03004 MFG. Part #: NASM21250-03004 REV.1
Material Spec: AMS6322N Heat #: 10111570
Type: 8740 Mill, Vendor: CHARTER STEEL/WIRE TECH
Code: 12992 Procure Spec: NASM8831 REV.4

Hardness per NASM1312-6, ASTM E 18 or E 384

Minimum Requirement: 39-43 HRC.

40.0	40.0	41.0	41.0	41.0
41.0	41.0	41.0	41.0	41.0
42.0	42.0	42.0	42.0	42.0

Metallurgical Tests

Hardness: N/A

Grain Size: N/A Decarb: NONE


Metallurgical, Special Process and Subcontracted Test Information
THREADS INSPECTED PER MIL-S-8879C N.3, AS8879D OR MIL-S-7742D A
MACRO AND MICROSTRUCTURE SATISFACTORY 5 PCS
HEAT TREAT PER AMS2759/1E BY QUALITY HEAT TREAT #122177
CAD PER AMS-QQ-P-416C TYII CL.2 BY SWP #124025
100% MAG PER ASTM E 1444/E1444M-11 BY ACTIVE #124493
HYDROGEN EMBRITTLEMENT PER NASM1312-5 N/C BY ATLAS #106229

BAE Aerospace, Inc. - Consumables Management
SelfSignature and Stamp:
Date: 4/12/13

THIS TEST CERTIFICATION SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF 3V FASTENERS CO., INC. TESTING LABORATORY.
THIS CERTIFICATION SHALL NOT BE USED BY THE CUSTOMER TO CLAIM PRODUCT ENDORSEMENT BY ANY AGENCY OF THE U.S. GOVERNMENT.
3V FASTENERS CERTIFIES THAT THE PRODUCT SHIPPED ON ABOVE PURCHASE ORDER WERE MANUFACTURED, INSPECTED AND TESTED IN COMPLIANCE WITH ALL APPLICABLE PRINTS AND SPECIFICATIONS. ALL SUPPORTING DOCUMENTATION IS ON FILE AT 3V.
ACCREDITED TO AS9100C, ACCREDITED ISO 9001:2008.
SAI GLOBAL CERT-0049384, CAGE CODE 1ER65, COO:USA
BAE APPROVAL BAE/AG/30148/CAL, AIRBUS APPROVAL 30085.
THE RAW MATERIAL USED TO MANUFACTURE THESE PARTS WAS MELTED IN THE USA OR A QUALIFYING COUNTRY AND COMPLIES WITH THE APPLICABLE SECTIONS OF DFARS 252-225.

QUALITY ASSURANCE LAB SUPERVISOR

ROBERT CANTILLO

3V FASTENERS CO., INC.		FINAL INSPECTION REPORT			PG 1 OF 2	
PART NUMBER	REV.	LOT #	LOT SIZE	SAMPLE SIZE		
MS21250-03004	1	206648	17520	315020		
DESC: BOLT TEN EXT WRENCH 12PT		PRINT NUMBER	SAMPLING PLAN			
FLANGED 10/32 X .690		NASM21250	NASM8831 TBL XII, S-3			
PRINT CHARACTERISTIC	PRINT REQ.	ACTUAL	ACC.	REJ.	GAGE EQUIPMENT	
**HEAD MARKING	MS21250 LOGO	MS21250 LOGO	✓		VISUAL/10X	
**LENGTH ±.010	.700-.680	.698-.690	✓		CALIPER	
**GRIP LENGTH ±.010	.260-.240	.253-.250	✓		CALIPER/OPT.COMP.	
**THREAD PITCH DIA.	.1697-.1674	.1682-.1676	✓		TRI-ROLL	
**THREAD FUN. DIA.	.1697-.1674	.1696-.1685	✓		TRI-ROLL/RING GAGE	
**THREAD MAJOR DIA.	.1875-.1840	.1874-.1858	✓		MICROMETER	
**THREAD ROOT RADIUS	.0056-.0047	.0055-.0048	✓		OPTICAL COMPARATOR	
**THREAD MINOR DIA.	.1539-.1497	.1520-.1515	✓		TRI-ROLL/OPT.COMP.	
**INCOMPLETE THREADS	.062 MAX.	<.062	✓		OPTICAL COMPARATOR	
B GRIP DIAMETER	.1895-.1885	.1892-.1885	✓		MICROMETER/OPT COMP	
A COLLAR DIA.	.350-.340	.347-.341	✓		CALIPER	
Q LAND THICKNESS	.065-.045	.063-.059	✓		OPTICAL COMPARATOR	
**COLLAR ANGLE	47°-43°	45°-44°	✓		OPTICAL COMPARATOR	
R RADIUS UNDER HEAD	.041-.031	.038-.032			OPTICAL COMPARATOR	
H HEAD HEIGHT	.275-.255	.275-.273	✓		CALIPER/MICROMETER	
f WRENCH POINT DIA.	.2898-.2780	.2830-.2815	✓		CALIPER	
W WRENCH FLAT DIA.	.251-.245	.249-.246	✓		CALIPER/MICROMETER	
**CHAMFER TOP OF HEAD	32°-28°	32°-30°	✓		OPTICAL COMPARATOR	
**CHAMFER DIA TOP OF HD	.250-.235	.241-.237	✓		OPTICAL COMPARATOR	
12 FIN THD, B/S, RAD, GRIP	32 Ra MAX.	<32RA	✓		COMPARATOR GAGE/10X	
12 FIN. ALL OTHERS	125 Ra MAX.	<125RA	✓		COMPARATOR GAGE/10X	
10 BURRS/SHARP EDGES	.016-.003	.016-.003	✓		VISUAL/10X	
INSP. PERFORMED & ACCEPTED BY:				DATE: April 11, 2013		
REPORT PREPARED BY: DAN HENSON				5 DATE: February 8, 2013 144351		

FORM 11-1, REV 5 03/17/98

NOTES: MFG DATE; 10/16/12
 ** = PRINT DETAIL REF NASM8831
 * = PER INCH OF LENGTH

"Sample (s): Customer Supplied"

TEST REPORT



106229
2-9-13



ATLAS TESTING LABORATORIES, INC.

9820 6th Street, Rancho Cucamonga, CA 91730

909-373-4130

FAX 909-373-4132

TW/IG

PO# 106229

DATE: 2/8/13
ATL# 328528

CLIENT: 3V FASTENERS
ATTN: NICOLE MATTHESON
320 REED CIRCLE
CORONA, CA 92879-1349

PN# MS21250-03004
ROUTE# 208648
QTY: 5 PCS.
LOT# 17,743

ALLOY: 8740

SPEC:MS 21250 REV. L, NASM 8831 REV. 3

HYDROGEN EMBRITTLEMENT: (METHOD - AMS-QQ-P-416C, NASM 1312-5 N/C)

Test Temperature:	Room Temperature
Type of Specimen	Fastener
Actual Size:	.1900-32
Load (lbs):	3,128 lbs
Pen Load (lever arm ratio 20 to 1):	156.4 lbs
Test Duration:	23.1 hrs.
Results:	No Failure / Test Discontinued
Number of samples tested:	Five (5)
Minimum Requirements:	Stress 80% of 3,128 lbs. for 23 hrs.

ATE# 944-A

MAGNETIC PARTICLE INSPECTION: (METHOD - ASTM-E1444/05)

Five (5) samples tested all Satisfactory

Remarks: Conforms to requirements.

Respectfully Submitted:


Pete B. Salazar, General Manager

Date: 2/8/13

ATLAS TESTING SUBMITS THIS REPORT AS THE CONFIDENTIAL PROPERTY OF OUR CLIENT. REPRODUCTION IS AUTHORIZED, BUT ONLY IF IN FULL. THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT INFORMATION TO THIS REPORT MAY BE PUNISHABLE UNDER FEDERAL LAW.

Receiving Report

Date: 4/4/18
 Supplier: BRE

Batch No: 599
M/288889
 Dart P/O: 2 3608

Packing Slip: Yes ☐ No ☐
 Invoice: Yes ☐ No ☐
 Receipt: Cash ☐ Cr ☐
 New Supplier Yes ☐ No ☐

Release Note Attached: Yes ☐ No ☐ N/A ☐
 Waybill Attached: Yes ☐ No ☐
 Shipment Complete: Yes ☐ No ☐ N/A ☐
 QC18 Inspection ☐ N/A ☐
 Work Order ☐ N/A ☐

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Rec'd	Quantity Short	Quantity Inspected	Quantity Rejected	Comment / NCR Number
M61798-C4B	.	50	0	50			

Initials of Receiver QC12 _____

Production/Admin: _____
 Date _____
 Received/Costing _____
 Initial _____

Location _____



9356 1/2 San Fernando Road, Unit B • Sun Valley, CA 91352
(818) 504-0677 • FAX (818) 504-1559

4-10-13 124493

SOLD TO: 320 REED CIRCLE
CORONA, CA 92879
(951) 734-4391

17592 168#	MS21250-03004 10/32 X .690 MAO 12PT HD R/N# 206648-140.00
------------	--

CERTIFICATION / TEST / REPORT

Southwest Plating Company, LLC

1344 W. Slauson Ave.
Los Angeles, CA 90044-2824
Telephone (323) 753 - 3781
Fax (323) 753 - 9472

CERTIFICATION

124025



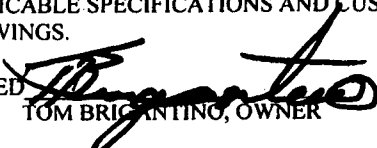
DATE	INVOICE #
1/31/2013	130009

02-01-13

BILL TO
Three V. Fasteners 320 Reed Circle Corona, CA 92879-1349

SHIP TO
Three V. Fasteners 320 Reed Circle Corona, CA 92879-1349

P.O. NUMBER	TERMS	REP	SHIP	VIA	F.O.B.	PROJECT
124025	Net 30		1/31/2013			

QUANTITY	ITEM CODE	DESCRIPTION	PRICE EACH	AMOUNT.
	# OF PIECES	17743	0.00	0.00
	PART NUMBER	MS21250-03004	0.00	0.00
	PANS	4	0.00	0.00
	JOB NUMBER	206648-120.00	0.00	0.00
	POUNDS	167.50	0.00	0.00
	MATERIAL	8740	0.00	0.00
		PO#00826091	0.00	0.00
41		CAD PLATE TYPE 11 CL 2 PER AMS-QQ-P-416C	0.00	0.00
10		BAKE 23 HOURS @ 375 DEGREES F AFTER PLATE	0.00	0.00
		WITHIN FOUR HOURS AFTER PLATE		
	CERT	WE HEREBY CERTIFY THAT THE PROCESSING AND INSPECTION PERFORMED ON PARTS BY THIS PURCHASE ORDER ARE IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS AND CUSTOMER DRAWINGS.	0.00	0.00
	SIGN 1	SIGNED  TOM BRIGANTINO, OWNER	0.00	0.00
		DATE 1/31/2013		

Claims must be made within 5 days of receipt of goods. No returns accepted without our approval.

Total

\$0.00



3305 BURTON AVE.
BURBANK
CALIFORNIA 91504
323-849-6604
818-840-8212
FAX 818-953-5056
www.qualityht.com

CERTIFICATION

122177
CERTIFICATION NUMBER

420247

3 V FASTENERS COMPANY INC
320 REED CIRCLE
CORONA, CA 92879



SHIP TO

3 V FASTENER COMPANY INC
320 REED CIRCLE
CORONA, CA 92879

12-10-12

CUSTOMER NUMBER	DATE RECEIVED	CUSTOMER P.O. NUMBER	CUSTOMER SHIPPER
0001433	11/28/12	00818680	122177/122178

QUANTITY

WEIGHT

PART NUMBER / DESCRIPTION

18153

177

MS21250-03004 10/32 X .690 12PT HD
ROUTER#206648-40.00 HT TO 180 KSI MIN
REF PO#00818681 FATIGUE RATED

MATERIAL	HARDNESS	MAX-CROSS SECTION	CASE DEPTH	CORE HARDNESS
8740	40-43 HRC	.190		

SPECIFICATIONS AMS 2759/1 E PYROMETRY PER AMS 2750 D ASTM A 380-06 GLASSBEAD BLAST ONLY

PROCESS	SPEC TEMP	SPEC TIME	EQUIP.	ACT TEMP	TIME IN	TIME AT-HEAT	TIME OUT	ATMOS DEWPT	Q-MED & TEMP	DATE
RUN PARTS IN FLAT BASKETS NO MORE THAN 1 INCH DEEP AND NO MORE THAN 100 LBS PER BASKET. THIS WILL BE 2 PANS MAX PER BASKET, 2 BASKETS MAX. RUN A METAL TUBE IN THE BOTTOM BASKET TO SUPPORT THE TOP BASKET, AND ALLOW OIL FLOW FOR PROPER QUENCHING.										
WASH			QW1		.25	Y				12/04
AUSTENITIE	1550	1:00	Q39	1550	11:15	11:55	12:55	.40	OIL	12/05
WASH			QW1		.08	Y				12/05
TEMPER 15	800	3:30	Q40	800	14:30	15:35	19:05	AIR	A/C	12/05
VERIFY			VERIFY		.02	Y				12/06
GLASSBEAD			GLASS		4.00	Y				12/10

DEC 10 2012

HARDNESS:40-43 HRC QTY TESTED:50 QTY ACCT:18153 QTY REJT:0

SPECTOR
MARIO MEDRANO

DATE
12/10/12

QUALITY MANAGER
JUAN ALCALA for JOSE VELAZQUEZ

Process Certification covers thermal processing and/or hardness testing only. No particular mechanical properties of any material should be assumed, or are implied, as a result of the thermal processing and/or hardness testing cited in this Process Certification. Material processed in a mercury-, radium- and asbestos-free environment. Unless otherwise specified above, for all AMS material specifications, no qualification or periodic testing has been performed. L FURNACES CERTIFIED TO MEET THE REQUIREMENTS OF AMS-H-6875, CURRENT REVISION. HARDNESS TESTING PERFORMED TO THE LATEST EDITION OF ASTM E 384, ASTM E 10, ASTM E 110, ASTM E 18, ASTM E 140 AND ASTM A 370.



WireTech, Inc.

6440 E. Canning Street
Los Angeles, CA 90040
Phone (323) 722-4933
Fax (323) 721-2738

SOLD TO

3V Fasteners
320 Reed Circle
Corona, CA 92879-1349
USA



WORK ORDER
085905

12992

HEAT NO.
10111570

SALES ORDER / RLS

841207 / 1

ISO 9001-2000 REGISTERED



MECHANICAL TESTING
CERT # 911.01

CERT# 911.01

CUSTOMER P.O. 103165	CUSTOMER PART 2810-2820 8740	QUANTITY 406 Lbs	CARRIERS 1	LADING NO 00092206	SHIPMENT DATE 09/07/2011			
SPECIFICATION T338740-102815A A-8740, AQ, SKFG, CHQ WIRE, SEAM & DECARB FREE, SAIP Zinc Phosphate, Lime & Stearate Coating, Size:0.281/0.282 Specifications: AMS2301H, AMS6322N, MIL-S-6049A, AMEND. 1, AMS-S-6049-A, M-001-AL								
CERTIFICATION REQUIREMENTS								
Chemical Properties								
C .39	Si .26	Mn .84	P .009	S .007	Cu .10	Ni .43	Cr .53	Mo .22
Physical Properties								
Grain Size Jominy 6 J5=51	1 Jominy J8=44	2 Jominy J10=39	3 Inclusions S2-R1-C2	Macro GOOD	Cleanliness F&S=0	Mill Source Charter		
Country of Origin USA - DFAR Compliant								
Mechanical Properties								
TEST	UNITS	Results						
Tensile Strength	KSI	80.7						
Decarb (Total)	In	0.00						
Yield Strength	KSI	68.6						
% Elongation	%	29						
% Reduction of Area	%	74.6						
Rockwell Hardness B Scale	HRB (s)	84						
1. 193 2. 217 410P 2 coils 9-8-11 8L								

Merchandise covered by this invoice is warranted to be free from defects in workmanship or material but not for any specific length of time, type or measure of service. No claim for allowance will be recognized unless presented in writing within 10 days time after receipt of material. Our maximum liability for any claim predicated upon defective merchandise is limited to replacement of it, or to repayment of it, or to repayment of the purchase price thereof, as we elect. Material cut to specific length or size cannot be returned for credit and request for cancellation of such orders will not be considered if manufacture has been commenced. Buyer, by acceptance of the merchandise covered by this invoice, agrees to the foregoing terms and conditions and those set forth on the reverse hereof. The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal statutes including Federal law, Title 18, Chapter 47.

REPRODUCTION OF THIS CERTIFICATION IS NOT ALLOWED UNLESS IN FULL.

Wire Tech, Inc. metallurgical laboratory is accredited in the following test: chemical analysis per ASTM E 415, mechanical testing per ASTM A 370, Rockwell hardness per ASTM E 18, metallographic mount preparation per ASTM E 3, decarburization depth per ASTM E 1077, IFI 140, inclusion rating per ASTM E 45, decarburization performed as per IFI 140.

The reported Chemical and Physical Properties are Melt Source results. Transcribed from mill certificates. HRB(W) are hardness results performed with a 1/16" carbide ball. Unless otherwise specified, HRB and HRC results are conversions from ASTM A370 tables 1 and 2. *Test result not covered by our current A2LA accreditation. Tests which have been undertaken by a subcontractor laboratory that is not accredited are not endorsed by A2LA or covered by Wire Tech, Inc. A2LA accreditation.

TEST RESULTS RELATE ONLY TO THE ITEMS TESTED.

"LATEST REVISIONS OF ASTM"

DFAR Material per Clauses 252.225-7014 ALT. 1, 252.225-7009, & 225.003(9)

Material is free of mercury, radium, or alpha contamination.



CHARTER STEEL

A Division of
Charter Manufacturing Company, Inc.

EMAIL



CHARTER STEEL TEST REPORT

Reverse Has Text And Codes

12992 9-9-11

1658 Cold Springs Road
Saukville, Wisconsin 53080
(262) 268-2400
1-800-437-8789
FAX (262) 268-2570

Wiretech Incorporated
6440 East Canning Street
Attn: Andre Stephan
Los Angeles, CA-90040

Cust P.O.	6696-5
Customer Part #	8740C1A090-C-R
Charter Sales Order	70023291
Heat #	10111570
Ship Lot #	4085650
Grade	8740 R SK FG AQ 23/64
Process	HRSA
Finish Size	23/64

I hereby certify that the material described herein has been manufactured in accordance with the specifications and standards listed below and on the reverse side, and that it satisfies these requirements.

Test Results of Heat Lot# 10111570												
Lab Code: 7388	C	MN	P	S	SI	NI	CR	MO	CU	SN	V	
CHEM												
%Wt	.39	.84	.009	.007	.26	.43	.53	.22	.10	.006	.001	
	AL	N	B	TI	O2	NB						
	.024	.0060	.0001	.002	.0011	.002						
JOMINY(HRC)	JOM01	JOM02	JOM03	JOM04	JOM05	JOM06	JOM07	JOM08	JOM09	JOM10	JOM11	JOM12
	57	56	56	55	51	50	46	44	41	39	38	37
	JOM13	JOM14	JOM15	JOM16	JOM18	JOM20	JOM22	JOM24	JOM26	JOM28	JOM30	JOM32
	36	35	33	33	33	31	30	30	31	30	30	29
JOMINY SAMPLE TYPE ENGLISH = B JOMINY LAB = 0358-01												
E45 INCLUSION LAB = 0358-02												
Cleanliness	ASTM-E45 Method A											
	A	B	C	D								
Thin	.5	1.2	.0	.5								
Heavy	.0	.0	.0	.0								
LOC1 = 1-3	AT = .5	AH = .0	BT = .5	BH = .0	CT = .0	CH = .0	DT = .5	DH = .0				
LOC2 = 2-3	AT = .5	AH = .0	BT = 2.0	BH = .0	CT = .0	CH = .0	DT = .5	DH = .0				
LOC3 = 3-3	AT = .5	AH = .0	BT = 1.0	BH = .0	CT = .0	CH = .0	DT = .5	DH = .0				
LOC4 = 3-6	AT = .5	AH = .0	BT = 1.0	BH = .0	CT = .0	CH = .0	DT = .5	DH = .0				
LOC5 = 4-3	AT = .5	AH = .0	BT = 1.5	BH = .0	CT = .0	CH = .0	DT = .5	DH = .0				
LOC6 = 4-11	AT = .5	AH = .0	BT = 1.0	BH = .0	CT = .0	CH = .0	DT = .5	DH = .0				
MACRO ETCH SURFACE = 1 MACRO ETCH RANDOM = 1 MACRO ETCH CENTER = 1												
AMS 2301 FREQUENCY AVERAGE = .00 AMS 2301 FREQUENCY INDIVIDUAL = .00												
AMS 2301 SEVERITY AVERAGE = .00 AMS 2301 SEVERITY INDIVIDUAL = .00												
CHEM. DEVIATION EXT.-GREEN =												

Test Results of Rolling Lot# 1041397				
REDUCTION RATIO = 299:1				
Test Results of Processing Lot# 4085476, 4085650				
# of Tests	Min Value	Max Value	Mean Value	
TENSILE	2.0	86.7	87.0	86.8
REDUCTION OF AREA	2	67	67	67
ROCKWELL B	2	83	85	84
TENSILE LAB = 0358-02				
RA LAB = 0358-02				
RB LAB = 0358-02				
NUM DECARB = 2 FREE FERRITE DECARB = .000 FREE FERR & PARTIAL DECARB = .003				
CP SPHERO % LAB = 0358-02 NUM SPHERO = 2 SPHERODIZATION = 85.0				
Specifications:	Manufactured per Charter Steel Quality Manual Rev 9,08-01-09			

Charter Steel
Saukville, WI, USA



This MTR supersedes all previously dated MTRs for this order

Janice Barnard
Janice Barnard
Manager of Quality Assurance
07/28/2011

Rem: Load1,Fax0,Mail0

CHARTER
STEEL

A Division of
Charter Manufacturing Company, Inc.

**CHARTER
STEEL**

EMAIL



12992 9-9-11
1658 Cold Springs Road
Saukville, Wisconsin 53080
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CHARTER STEEL TEST REPORT
Reverse Has Text And Codes

Wiretech Incorporated
6440 East Canning Street
Attn: Andre Stephan
Los Angeles, CA-90040

Cust P.O.	6696-5
Customer Part #	8740C1A090-C-R
Charter Sales Order	70023291
Heat #	10111570
Ship Lot #	4085650
Grade	8740 R SK FG AQ 23/64
Process	HRSA
Finish Size	23/64

I hereby certify that the material described herein has been manufactured in accordance with the specifications and standards listed below and on the reverse side, and that it satisfies these requirements.

Meets customer specifications with any applicable Charter Steel exceptions for the following customer documents:
Customer Document = AMS6322N/AMS2301K/COP3010M/BS2S147:1976 CHEM ONLY Revision = Dated =

Additional Comments:

Charter Steel
Saukville, WI, USA

Rem: Load1, Fax0, Mail0



Page 2 of 2

This MTR supersedes all previously
dated MTRs for this order

Janice Barnard
Janice Barnard
Manager of Quality Assurance
07/28/2011

12992 9-9-11

The following statements are applicable to the material described on the front of this Test Report:

1. Except as noted, the steel supplied for this order was melted, rolled, and processed in the United States meeting DFAR's compliance.
2. Mercury was not used during the manufacture of this product, nor was the steel contaminated with mercury during processing.
3. Unless directed by the customer, there are no welds in any of the coils produced for this order.
4. The laboratory that generated the analytical or test results can be identified by the following key:



Certificate Number	Lab Code	Laboratory		Address
0358-01	7388	CSSM	Charter Steel Melting Division	1653 Cold Springs Road, Saukville, WI 53080
0358-02	8171	CSSR/CSSP	Charter Steel Rolling/Processing Division	1658 Cold Springs Road, Saukville, WI 53080
0358-03	123633	CSFP	Charter Steel Ohio Processing Division	6255 US Highway 23, Risingsun, OH 43457
0358-04	125544	CSCM/CSCR	Charter Steel Cleveland	4300 E. 49th St., Cuyahoga Heights, OH 44125-1004
.	.	--	Subcontracted test performed by laboratory not in Charter Steel system	

5. When run by a Charter Steel laboratory, the following tests were performed according to the latest revisions of the specifications listed below, as noted in the Charter Steel Laboratory Quality Manual:

Test	Specification	CSSM	CSSR/CSSP	CSFP	CSCM/CSCR
Chemistry Analysis	ASTM E415; ASTM E1019	X			X
Macroetch	ASTM E381	X			X
Hardenability (Jominy)	ASTM A255; SAE J406; JIS G0561	X			X
Grain Size	ASTM E112	X	X	X	X
Tensile Test	ASTM E8; ASTM A370		X	X	X
Rockwell Hardness	ASTM E18; ASTM A370	X	X	X	X
Microstructure (spheroidization)	ASTM A892		X	X	
Inclusion Content (Methods A, E)	ASTM E45		X		X
Decarburization	ASTM E1077		X	X	X

Charter Steel has been accredited to perform all of the above tests by the American Association for Laboratory Accreditation (A2LA). These accreditations expire 01/31/13.

All other test results associated with a Charter Steel laboratory that appear on the front of this report, if any, were performed according to documented procedures developed by Charter Steel and are not accredited by A2LA.

6. The test results on the front of this report are the true values measured on the samples taken from the production lot. They do not apply to any other sample.
7. This test report cannot be reproduced or distributed except in full without the written permission of Charter Steel. The primary customer whose name and address appear on the front of this form may reproduce this test report subject to the following restrictions:
 - It may be distributed only to their customers
 - Both sides of all pages must be reproduced in full
8. This certification is given subject to the terms and conditions of sale provided in Charter Steel's acknowledgement (designated by our Sales Order number) to the customer's purchase order. Both order numbers appear on the front page of this Report.
9. Where the customer has provided a specification, the results on the front of this test report conform to that specification unless otherwise noted on this test report.



Alcoa Fastening Systems



Packing Slip



Packing Slip: 9948045788

Page: 1

Bill To: 5574
B/E AEROSPACE, INC.
P.O.BOX 025263
MIAMI FL 33102-5263
USA

Ship To: (14)
B/E AEROSPACE CONSUM MGMT
9835 NW 14TH ST
MIAMI FL 33172
USA

From:
ALCOA FASTENING SYSTEMS
AEROSPACE PRODUCTS
FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

Notice to Subsequent Purchaser or Repacker.
These articles are imported. The requirements of 19 U.S.C.
1304 & CFR part 134 provide that the articles or their
containers must be marked in a conspicuous place as
legibly, indelibly & permanently as the nature of the article or
container will permit, in such a manner as to indicate to an
ultimate purchaser in the United States, the English name of
the country of origin of the article.

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
10/25/12	F417832	OESA88			

Line/Rel Item

5-1 AAE470
H14-5

C/I: MS21042L5
PO Item #: 1

*** TSO C-148 APPVD PART. TSO LABEL REQ'D ***

Lot: M018009-000

COO:MEXICO

Waybill:

ECCN:9A991 Schedule-B Number:7318.16.0000

PACKING SLIP

The export classification appears above. You are responsible for all related export license requirements.

MFG C OF C CHEM & PHYS TEST REPORT REQ
CERT CHARGES ON 6 & 7 INVOICE WITH 5
*** DUAL CERT TO NAS1291-5 ***

BUYER: CRISTINA SANCHEZ PHONE:
MATERIAL COMPLIES WITH DFARS 252.225-700

ALCOA GLOBAL FASTENERS, INC.

Keyner Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CUSTOMER'S COPY

Alcoa Fastening Systems



Packing Slip



Packing Slip: 9948045788

Page: 2

Bill To: 5574
B/E AEROSPACE, INC.
P.O.BOX 025263
MIAMI FL 33102-5263
USA

Ship To: (14)
B/E AEROSPACE CONSUM MGMT
9835 NW 14TH ST
MIAMI FL 33172
USA

From:
ALCOA FASTENING SYSTEMS
AEROSPACE PRODUCTS
FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

Order Contact:

=====

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
10/25/12	F417832	OESA88			

=====

Line/Rel Item

/M

Qty Ordered

Qty To Pack

9 PREFERENCE FOR DOMESTIC SPECIALTY
METALS" WITH ITS ALTERNATE 1.

***SHIPPING INSTRUCTIONS: 1-149 LBS:FEDX

GRD COLLECT ACCT# 0331-0149-0

150 LBS OR MORE:SHIP FED EX FREIGHT ECONOMY

OMY. COLLECT ACCT# 018757. ***

DO NOT SHIP BY ANY OTHER WITHOUT PROPER

WRITTEN AUTHORIZATION.

ALLOWABLE SHIPPING TOLERANCE = +0%-0 %.

*** BAR CODE PER QAP 33 CLAUSE P REQUIRE

D ***

** QAP 33.0 REV F CLAUSES: A,A.1,B,C,E,H

,P,U,V.

CLAUSE A.3 GENERAL TERMS APPLIES.

chem & phys certs

ALCOA GLOBAL FASTENERS, INC.

Kaynar Products: Cage Code 15653

Eagle Products: Cage Code 66776

Rosan Products: Cage code 66776

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CUSTOMER'S COPY

Alcoa Fastening Systems



Packing Slip

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ALCOA FASTENING SYSTEMS
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FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

Notice to Subsequent Purchaser or Repacker.
These articles are imported. The requirements of 19 U.S.C. 1304 & CFR part 134 provide that the articles or their containers must be marked in a conspicuous place as legibly, indelibly & permanently as the nature of the article or container will permit, in such a manner as to indicate to an ultimate purchaser in the United States, the English name of the country of origin of the article.

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
10/25/12	F417832	OESA88			

Line/Rel	Item	Qty	Ordered	Qty to Pack
5-1	AL2470 H14	250,000		39,711

C/I: MS21042L5
PO Item #: 1
*** TSO C-148 APPVD PART. TSO LABEL REQ'D ***

Cust Date: 08/10/12
Kay Date: 08/01/12

Lot: M018009-000 COO:MEXICO
Waybill: _____ ECCN:9A991 Schedule-B Number:7318.16.0000

The export classification appears above. You are responsible for all related export license requirements.

MFG C OF C CHEM & PHYS TEST REPORT REQ
CERT CHARGES ON 6 & 7 INVOICE WITH 5
*** DUAL CERT TO NAS1291-5 ***

BUYER: CRISTINA SANCHEZ PHONE:
MATERIAL COMPLIES WITH DFARS 252.225-700

CERTIFICATE OF CONFORMANCE

This is to certify that all items noted above were produced in conformance with the contract, drawing specifications, and other applicable documents. All required process certifications, chemicals and physical test reports are on file subject to examination. This document must not be reproduced except in full and relates only to the items tested.

Michele M. Varela
MICHELE M. VARELA
Quality Manager
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

Keynar Products: Cage Code 15653 • Eagle Products: Cage Code 66776 • Rosan Products: Cage code 66776

ALL CLAIMS REGARDING THIS ORDER MUST BE REPORTED TO SELLER PROMPTLY. CLAIMS FOR CREDIT OR REPLACEMENT OF PARTS MAY BE LIMITED TO THOSE PARTS FOR WHICH TRACEABILITY HAS BEEN MAINTAINED BY THE BUYER. THE SELLER'S MANUFACTURING LOT IDENTIFICATION NUMBER AND RETURN MERCHANDISE AUTHORIZATION (RMA) NUMBER MUST ACCOMPANY ALL RETURNS. ANY CLAIM BASED ON AN ALLEGED DISCREPANCY IN QUANTITY, QUALITY, ETC. BETWEEN THE GOODS ACTUALLY SHIPPED AND/OR DELIVERED UNDER THESE DOCUMENTS AND THE DESCRIPTION THEREOF IN THESE DOCUMENTS, MUST BE MADE IN WRITING TO SELLER NOT LATER THAN NINETY (90) DAYS AFTER THE SHIPPING DATE APPEARING HEREON. FOR ITEMS CERTIFIED TO BPS-N-70, ALLOY VERIFICATION HAS BEEN PERFORMED ON PARTS WITH A DATE OF MANUFACTURE ON OR AFTER JANUARY 1, 2001. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CUSTOMER'S COPY

Alcoa Fastening Systems



Packing Slip



Packing Slip: 9948045788

Page: 2

Bill To: 5574
B/E AEROSPACE, INC.
P.O. BOX 025263
MIAMI FL 33102-5263
USA

Ship To: (14)
B/E AEROSPACE CONSUM MGMT
9835 NW 14TH ST
MIAMI FL 33172
USA

From:
ALCOA FASTENING SYSTEMS
AEROSPACE PRODUCTS
FULLERTON OPERATIONS
800 SOUTH STATE COLLEGE
FULLERTON CA 92831
USA

Order Contact:

Pack Date	Order #	Cust PO	Ship Via	Weight	Pkgs #
10/25/12	F417832	0ESA88			

Line/Rel Item Description Qty Ord d to pack

9 PREFERENCE FOR DOMESTIC SPEC. ALY.
METALS WITH ITS ALTERNATE 1.

***SHIPPING INSTRUCTIONS: 1-149 LBS:FEDX

GRD COLLECT ACCT# 0331-0149-0 IF

150 LBS OR MORE:SHIP FED EX FREIGHT ECON

OMY COLLECT ACCT# 018757. ***

DO NOT SHIP BY ANY OTHER WITHOUT PROPER
WRITTEN AUTHORIZATION.

ALLOWABLE SHIPPING TOLERANCE = +0%-0 %.

*** BAR CODE PER QAP 33 CLAUSE P REQUIRE
D ***

** QAP 33.0 REV F CLAUSES: A,A.1,B,C,E,H
,P,U,V.

CLAUSE A.3 GENERAL TERMS APPLIES.

chem & phys certs

CERTIFICATE OF CONFORMANCE

This is to certify that all items noted above were produced in conformance with the contract, drawing specifications, and other applicable documents. All required process certifications, chemicals and physical test reports are on file subject to examination. This document must not be reproduced except in full and relates only to the items tested.

MICHELE M. VARELA
Quality Manager
Fullerton Operations

ALCOA GLOBAL FASTENERS, INC.

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CUSTOMER'S COPY

Alcoa Fastening Systems Aerospace Products Fullerton Operations 800 S. STATE COLLEGE BLVD FULLERTON, CA 92831				Page 1 of 2				
				TEST REPORT				
Supplier Item No. AAE470				Supplier Part No. H14-5				
Interchange Part No. CH127471-10 Rev. ISS. 9		Interchange Part No. H14-5		Interchange Part No. MS21042L5 Rev. NEW				
Interchange Part No. NAS1291-5 Rev. 13		Interchange Part No.		Interchange Part No.				
Manufactured Quantity 48502	Mfg. Date 08/21/12	Generic Description 6 POINT NUT		Thread Size .3125-24				
HEAT TREAT AMS-H-6875	PLATE/COAT AMS-QQ-P-416 TYII CL2	LUBRICATION ASS272 TY I		NON-DESTRUCT ASTM E1444 SAMPLE				
PERFORMANCE NASM25027								
Material Spec. # 1 AMS 6322-N	Mill Heat No. 10186890	Control Heat No. BE18366A	Material Supplier WIRETECH INC					
Special Process Requirements: THREADS AND GAUGING PER AS8879 AND ANSI B1.3M SYS. 22 MIN EQUALS BKWY MAX EQUALS INST.								
TEST RESULTS								
----- TEST ----- No. Description	UOM IN#	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
1 - 010 TORQUE TEST MAX 60, MIN 6.5 (CYCLES 1,7,15)		1	1	28.05	29.30		6.50	60.00
			7	22.50	22.55			
		15	32.85	20.80				
		2	1	26.55	28.40			
			7	22.45	24.05			
			15	23.40	24.75			
		3	1	20.75	24.20			
			7	31.95	21.20			
			15	17.15	17.80			
		4	1	34.70	38.80			
			7	32.50	34.30			
			15	32.70	32.80			
		5	1	30.40	32.85			
			7	21.25	22.20			
			15	29.35	29.60			
		6	1	30.20	36.50			
			7	25.95	26.55			
			15	27.75	28.45			
		7	1	24.20	28.80			
			7	20.80	22.15			
			15	28.00	23.55			
		8	1	29.50	32.20			
			7	23.35	25.15			
		TEST RESULTS - Continued on next page.						
THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL AND RELATES ONLY TO THE ITEMS TESTED								
The product identified on this Certificate has been manufactured, tested and unless otherwise noted, conforms in all respects to the applicable drawings, specifications and standards. Complete reports of physical and chemical tests are on file for examination. If no specified customer quality level is required, goods conform to sellers quality level. All Damages Exceeding Price are Excluded. For items certified to BPS-N-70 alloy verification has been performed on parts with a date of manufacturing on or after January 1, 2001. Quality system sampling plan conforms to the requirement of QAP EQ001, QAP EQ002, QAP EQ003. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.								
					 MICHELE M. VARELA, QA MOR.			

NO.

Page 2 of 2

8178207

Lot No.

M018009-000

**Alcoa
Fastening
Systems**Aerospace Products
Fullerton Operations
800 S.STATE COLLEGE BLVD
FULLERTON, CA 92831**TEST REPORT**

Supplier Item No.

AAE470

Supplier Part No.

H14-5

TEST RESULTS - Continued from previous page.

----- TEST ----- No. Description	JOM	SAMPLE Number	RESULT Cycle	MINIMUM Value	MAXIMUM Value	PASS/ Fail	MINIMUM Requirement	MAXIMUM Requirement
2 - 020 TENSILE TEST MIN 9820 LBS	LBS	9	15	25.65	27.35			
			1	36.00	39.50			
			7	26.65	27.80			
		10	15	28.55	30.95			
			1	24.60	27.95			
			7	19.85	21.15			
			15	20.20	20.15			
		1	1	11520.00			9820.00	
		2	1	10350.00				
		3	1	10350.00				
3 - 050 EMBRITTLEMENT 23 HOURS	HRS	4	1	10350.00				
		5	1	10350.00				
		6	1	10350.00				
		7	1	10350.00				
		8	1	10350.00				
		9	1	10350.00				
		10	1	10350.00				
		1	1			Pass		
		2	1			Pass		
		3	1			Pass		
4 - 110 HARDNESS HRC 40-44	HRC	4	1			Pass		
		5	1			Pass		
		6	1			Pass		
		7	1			Pass		
		8	1			Pass		
		9	1			Pass		
		10	1			Pass		
		1	1	42.00	44.00			

THIS REPORT MUST NOT BE REPRODUCED EXCEPT IN FULL AND RELATES ONLY TO THE ITEMS TESTED

The product identified on this Certificate has been manufactured, tested and unless otherwise noted, conforms in all respects to the applicable drawings, specifications and standards. Complete reports of physical and chemical tests are on file for examination. If no specified customer quality level is required, goods conform to sellers quality level. All Damages Exceeding Price are Excluded. For items certified to BPS-N-70 alloy verification has been performed on parts with a date of manufacturing on or after January 1, 2001. Quality system sampling plan conforms to the requirement of QAP EQ001, QAP EQ002, QAP EQ003. The recording of false, fictitious, or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

MICHELE M. VARELA, QA MGR.

**WireTech, Inc.**6440 E. Canning Street
Los Angeles, CA 90040
Phone (323) 722-4833
Fax (323) 721-2738

SOLD TO

Alcoa Fastening Sys. Fullerton
Fullerton Operations
561 S. State College
Fullerton, CA 92831
USA**CERTIFICATION**WORK ORDER
091651HEAT NO.
10186890
SALES ORDER / RLS
843177 / 1
ISO 9001-2000 REGISTEREDMECHANICAL TESTING
CERT # 911.01

CERT# 911.01

CUSTOMER P.O.	CUSTOMER PART	QUANTITY	CARRIERS	LADING NO	SHIPMENT DATE
220567810	GPV_717919	3,410 Lbs	2	00098627	08/02/2012
SPECIFICATION F218740-104150A A-8740, AQ, SKFG, CHQ WIRE, SEAM & DECARB FREE, SAIP Zinc Phosphate, Lime & Stearate Coating, Size:0.414/0.416 Specifications: AMS 2301K, AMS 6322N, MIL-S-6049A AMEND 1 MS 111, REV 7, AMS-S-6049-A					
CERTIFICATION REQUIREMENTS					
Chemical Properties					
C ✓	Si ✓	Mn ✓	P ✓	S ✓	Cu ✓
.38	.26	.84	.01	.005	.1
Physical Properties					
Grain Size Jominy 1	Jominy 2	Jominy 3	Inclusions Macro	Cleanliness Mill Source	
6 ✓ J5=52	J8=45	J10=43	S2-R1-C2	GOOD	F&S=0
Country of Origin					
USA - DFAR Compliant					
Mechanical Properties					
TEST	UNITS	Results			
Tensile Strength	KSI	84.8			
Decarb (Total)	In	0.00			
Yield Strength	KSI	72.0			
% Elongation	%	31.5			
% Reduction of Area	%	71.9			
Rockwell Hardness B Scale	HRB (s)	88			
<p>8/8/12 K4224</p>					
<p>Merchandise covered by this invoice is warranted to be free from defects in workmanship or material but not for any specific length of time, type or measure of service. No claim for allowance will be recognized unless presented in writing within 10 days time after receipt of material. Our maximum liability for any claim predicated upon defective merchandise is limited to replacement of it, or to repayment of it, or to repayment of the purchase price thereof, as we elect. Material cut to specific length or size cannot be returned for credit and request for cancellation of such orders will not be considered if manufacture has been commenced. Buyer, by acceptance of the merchandise covered by this invoice, agrees to the foregoing terms and conditions and those set forth on the reverse hereof. The recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under Federal statutes including Federal law, Title 18, Chapter 47.</p> <p>REPRODUCTION OF THIS CERTIFICATION IS NOT ALLOWED UNLESS IN FULL.</p> <p>Wire Tech, Inc. metallurgical laboratory is accredited in the following test: chemical analysis per ASTM E 415, mechanical testing per ASTM A 370, Rockwell hardness per ASTM E 18, metallographic mount preparation per ASTM E 3, decarburization depth per ASTM E 1077, IFI 140, inclusion rating per ASTM E 45, decarburization performed as per IFI 140. The reported Chemical and Physical Properties are Mill Source results. Transcribed from mill certificates. HRB(W) are hardness results performed with a 1/16" carbide ball. Unless otherwise specified, HRB and HRC results are conversions from ASTM A370 tables 1 and 2. *Test result not covered by our current A2LA accreditation. Tests which have been undertaken by a subcontractor laboratory that is not accredited are not endorsed by A2LA or covered by Wire Tech, Inc. A2LA accreditation.</p> <p>TEST RESULTS RELATE ONLY TO THE ITEMS TESTED.</p> <p>DFAR Material per Clauses 262.225-7014 ALT. 1, 252.225-7000, & 225.003(9)</p> <p>Material is free of mercury, radium, or alpha contamination.</p>					



CHARTER STEEL

A Division of
Charter Manufacturing Company, Inc.

EMAIL

1658 Cold Springs Road
Saukville, Wisconsin 53080

(262) 268-2400

1-800-437-8789

FAX (262) 268-2570

CHARTER STEEL TEST REPORT

Reverse Has Text And Codes

Wiretech Incorporated
6440 East Canning Street
Attn: Andre Stephan
Los Angeles, CA-90040

Cust P.O.	6918-4
Customer Part #	8740C1A150-C
Charter Sales Order	70030170
Heat #	10186890
Ship Lot #	4136393
Grade	8740 R SK FG AQ 19/32
Process	HRSA
Finish Size	19/32

I hereby certify that the material described herein has been manufactured in accordance with the specifications and standards listed below and on the reverse side, and that it satisfies these requirements.

Test Results of Heat Lot# 10186890

Lab Code: 7388	C	MN	P	S	SI	NI	CR	MO	CU	SN	V
CHEM	.38	.84	.010	.005	.26	.43	.54	.21	.10	.008	.001
%Wt											
	AL	N	B	TI	NB						
	.026	.0050	.0001	.000	.002						
JOMINY(HRC)	JOM01	JOM02	JOM03	JOM04	JOM05	JOM06	JOM07	JOM08	JOM09	JOM10	JOM12
	55	55	55	54	52	49	47	45	44	43	39
	JOM14	JOM16	JOM18	JOM20	JOM24	JOM28	JOM32				
	37	38	34	33	31	28	28				

JOMINY SAMPLE TYPE ENGLISH = C
MACRO ETCH SURFACE = 1 MACRO ETCH RANDOM = 1 MACRO ETCH CENTER = 1
AMS 2301 FREQUENCY AVERAGE = .00 AMS 2301 FREQUENCY INDIVIDUAL = .00
AMS 2301 SEVERITY AVERAGE = .00 AMS 2301 SEVERITY INDIVIDUAL = .00
CHEM. DEVIATION EXT. - GREEN =

Test Results of Rolling Lot# 1065693

REDUCTION RATIO = 100:1

	# of Tests	Min Value	Max Value	Mean Value	
TENSILE	2.0	78.7	79.4	79.1	TENSILE LAB = 0358-02
REDUCTION OF AREA	2	66	70	68	RA LAB = 0358-02
ROCKWELL B	2	80	81	81	RB LAB = 0358-02

NUM DECARB = 4 FREE FERRITE DECARB = .000 FREE FERR & PARTIAL DECARB = .002
CP SPHERO % LAB = 0358-02 NUM SPHERO = 4 SPHERODIZATION = 86.9

Specifications:

Manufactured per Charter Steel Quality Manual Rev 9,08-01-09
Meets customer specifications with any applicable Charter Steel exceptions for the following customer documents:
Customer Document = AMS6322N/AMS2301K/COP3010M/BS2S147:1976 CHEM ONLY Revision = Dated =

Additional Comments:

Charter Steel
Saukville, WI, USA



Page 1 of 1

Rem: Load1, Fax0, Mail0

This MTR supersedes all previously
dated MTRs for this order

Janice Barnard
Janice Barnard
Manager of Quality Assurance
04/30/2012

The following statements are applicable to the material described on the front of this Test Report:

1. Except as noted, the steel supplied for this order was melted, rolled, and processed in the United States meeting DFAR's compliance.
2. Mercury was not used during the manufacture of this product, nor was the steel contaminated with mercury during processing.
3. Unless directed by the customer, there are no welds in any of the coils produced for this order.
4. The laboratory that generated the analytical or test results can be identified by the following key:

Certificate Number	Lab Code	Laboratory		Address
0358-01	7388	CSSM	Charter Steel Melting Division	1653 Cold Springs Road, Saukville, WI 53080
0358-02	8171	CSSR/CSSP	Charter Steel Rolling/Processing Division	1658 Cold Springs Road, Saukville, WI 53080
0358-03	123633	CSFP	Charter Steel Ohio Processing Division	6255 US Highway 23, Risingsun, OH 43457
0358-04	125544	CSCM/CSCR	Charter Steel Cleveland	4300 E. 49th St., Cuyahoga Heights, OH 44125-1004
.	.	--	Subcontracted test performed by laboratory not in Charter Steel system	

5. When run by a Charter Steel laboratory, the following tests were performed according to the latest revisions of the specifications listed below, as noted in the Charter Steel Laboratory Quality Manual:

Test	Specification	CSSM	CSSR/CSSP	CSFP	CSCM/CSCR
Chemistry Analysis	ASTM E415; ASTM E1019	X			X
Macroetch	ASTM E381	X			X
Hardenability (Jominy)	ASTM A255; SAE J406; JIS G0561	X			X
Grain Size	ASTM E112	X	X	X	X
Tensile Test	ASTM E8; ASTM A370		X	X	X
Rockwell Hardness	ASTM E18; ASTM A370	X	X	X	X
Microstructure (spheroidization)	ASTM A892		X	X	
Inclusion Content (Methods A, E)	ASTM E45		X		X
Decarburization	ASTM E1077		X	X	X

Charter Steel has been accredited to perform all of the above tests by the American Association for Laboratory Accreditation (A2LA). These accreditations expire 01/31/13.

All other test results associated with a Charter Steel laboratory that appear on the front of this report, if any, were performed according to documented procedures developed by Charter Steel and are not accredited by A2LA.

6. The test results on the front of this report are the true values measured on the samples taken from the production lot. They do not apply to any other sample.
7. This test report cannot be reproduced or distributed except in full without the written permission of Charter Steel. The primary customer whose name and address appear on the front of this form may reproduce this test report subject to the following restrictions:
 - It may be distributed only to their customers.
 - Both sides of all pages must be reproduced in full.
8. This certification is given subject to the terms and conditions of sale provided in Charter Steel's acknowledgement (designated by our Sales Order number) to the customer's purchase order. Both order numbers appear on the front page of this Report.
9. Where the customer has provided a specification, the results on the front of this test report conform to that specification unless otherwise noted on this test report.





Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO23658

Purchase Order Date 4/4/2014

PO Print Date 4/4/2014

Page Number 1 of 3

Order From :

VU-BEA001

Ship To : DART AEROSPACE LTD

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

305-925-2600

Ship To Contact

Ship To Phone

Ship Via:

FedEx PI collect

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Michael Gregoire

10127-2607

Net 30

USD

FCA - (Free Carrier)

M128798

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Ext
1	MS17984-C413	Quick Release Pin	4/11/2014 Yes 4/11/2014	FN	50.00 Each	\$18.00	
Line Total:							
2	MS20600-AD4W4	Rivets	4/11/2014 Yes 4/11/2014		3,000.00 Each	\$0.14	
Line Total:							
3	MS21042L4	Locknut	4/11/2014 Yes 4/11/2014	FN	5,000.00 Each	\$0.14	

Note:

4/4/2014



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO23658

Purchase Order Date 4/4/2014

PO Print Date 4/4/2014

Page Number 2 of 3

Order From :

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

VU-BEA001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

305-925-2600

Ship To Contact

Ship To Phone

Ship Via:

FedEx PI collect

Ship Acct:

Buyer

Michael Gregoire

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

Line Total:

4 MS21042L5

Nut

4/11/2014 FN

1,000.00

Yes

Each

4/11/2014

\$0.45

Line Total:

5 MS21043-4

Nut

4/11/2014 FN

1,500.00

Yes

Each

4/11/2014

\$0.55

Line Total:

6 MS21083C8

Nut

4/11/2014 FN

200.00

Yes

Each

4/11/2014

\$1.55

Line Total:

Note:

4/4/2014



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO23658

Purchase Order Date 4/4/2014

PO Print Date 4/4/2014

Page Number 3 of 3

Order From :

VU-BEA001

Ship To : DART AEROSPACE LTD

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 305-925-2600

Ship To Contact

Ship To Phone

Ship Via: FedEx PT collect

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Michael Gregoire

10127-2607

Net 30

USD

FCA - (Free Carrier)

7 MS21250-03004

HIGH STEEL BOLT

4/11/2014

25.00

\$2.50

Yes

Each

4/11/2014

Line Total:

8 71401-45

4/11/2014

0.00

\$0.00

No

4/11/2014

Procurement Quality Clauses

A005 RIGHT OF ENTRY

A012 CHEMICAL AND PHYSICAL TEST REPORTS

A016 PERSONNEL QUALIFICATION

A026 CERTIFICATION OF MATERIAL CONFORMANCE

A032 PUBLIC LAW 101-592 FASTENER QUALITY ACT

A033 STATEMENT OF CONFORMITY/TEST RECORDS

FOR NAS, AN and MS FASTENERS

A040 NOTIFICATION OF QUALITY ESCAPE

A041 QUALITY MANAGEMENT SYSTEM

A042 DART NOTIFICATION BY SUPPLIER

A043 RETENTION OF QUALITY DOCUMENTS

Line Total:

PO Total:

Note: Terms & Condition of Purchasing (Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr:

1

Change Date: 4/4/2014



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 9835 NW 14TH ST, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO23658

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
2	3000	EA	MS20600AD4W4	MS20600-AD4W4	86366913	CHERRY AEROSPACE SAN	11815		


Jason Lewis
Vice President of Quality

04/16/14

TEXTRON Fastening Systems
Fastening Systems for Aerospace

1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA



PACKING LIST

Order No: S0277824
Order Date: 07/20/04
Print Date: 11/03/04

Page: 1



Sold-To: 10013612

Ship-To: 10042248

**S
O
L
D
T
O**
SATAIR HARDWARE U.K. LTD
SHOREHAM AIRPORT
SHOREHAM BY SEA
WEST SUSSEX BN43 5FN
ENGLAND

**S
H
I
P
T
O**
SATAIR HARDWARE LTD/DANZAS
FOR ASSEMBLY SATAIR/U.K.
8500 OSAGE AVENUE
LOS ANGELES, CA 90045

Salesperson (s):205

Purchase Order: S33592



Credit Terms: Net 60
Net 60

Ship Via: DANZAS

FOB: Origin - Collect

Remarks: SHORTS CONTRACT

BRITISH AEROSPACE APPROVAL# BAe/AG/30158/CAL to BAe/AG/QC/SC1 PART 3
AIRBUS APPROVAL# AUK/SA/30114

Ln	Item Number	Site T Location	Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
12	CR9163-4-04 Customer Item: MS20600AD4W4 	1600 j0604	86366913		EA	10/12/04 

6600.0

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101852W

Test Reports Enclosed
Do Not Destroy

CERTIFICATION

ATTENTION: PURCHASING DEPARTMENT

Quality Assurance Representative

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

Signed



SIM NGUYEN

TEXTRON Aerospace Fasteners

Division of TEXTRON Inc.
1224 East Warner Avenue
Santa Ana, CA 92707-0157



An ISO9001 and AS9100 registered company

Final Inspection & Test Report

Cherry® Rivet

101852W

Part Numbers	Rev	Proc. Spec.	Rev	Lot I.D. No.:	86366913
CR9163-4-04	C	MIL-R-7885	D2	Lot Size:	7,900
				MFG. Date:	November 03, 2004

ASSEMBLY DATA

TYPE	ID #	CERT #	MATERIAL	FINISH	LUBE
Rivet	86366913	A47466	2117-T4 ALUM. ALLOY	MIL-C-5541	Par-90
Stem	86366943	A47618	2017-T4 ALUM. ALLOY	MIL-C-5541	None

W.O. #: 07200229

Final Lube: None

MECHANICAL STRENGTH TEST

MIN REQ'D	INSTALLED SHEAR		SPINDLE RETENSION	
	370		15	
SAMPLE SIZE	9		9	
SPECS			UnLocked	
RESULTS	511	520	54	56
	494		58	
	486		54	
	505		48	
	517		65	
	543		68	
	529		69	
LOAD VALUES IN POUNDS	513		83	

METALLURGICAL AND OTHER RELATED TESTS/REQUIREMENTS

PCS.	ITEM	PCS.	ITEM
80	EXAMINATION	13	INSTALLATION (Min and Max Grips)
	Locking feature (missing collar/spindle)		Spindle Protrusion/Recession
	Visual (grip/material code, ID)		Collar Protrusion
	Laps, seams, folds		Blind Head Dia./Formation
20	Roundness/Concentricity		Tightness in plate
	Dimensional, ID Marks, Tool Marks/Nicks		

Comments:

Blind Fastener

The parts contained in this shipment have been manufactured and inspected in accordance with FAA TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Substitution of parts may only be done if acceptable to or approved by the Administrator.

Tr. Rev.: -
Rev. Date: 11/2/2004

Inspector
M Alarcon



Insp. Control #: 250564

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Cherry® Rivet**

Lot I.D. No.:	86366913
Rev:	-

Customer Parts List

<u>Customer Part Number</u>	<u>Rev</u>	<u>Proc. Spec.</u>	<u>Rev</u>
MS20600AD4W4	-	MIL-R-7885	D2